SONY

Micro HI-FI Component System

Operating Instructions

DVD VIDEO   **COMPACT** d**i**sc DIGITAL VIDEO   *ATRAC*

S-master
Digital Amplifier

CMT-DH30
CMT-DH3

© 2007 Sony Corporation

WARNING

To reduce the risk of fire, do not cover the ventilation opening of the apparatus with newspapers, tablecloths, curtains, etc. Do not place the naked flame sources such as lighted candles on the apparatus.

To reduce the risk of fire or electric shock, do not expose this apparatus to dripping or splashing, and do not place objects filled with liquids, such as vases, on the apparatus.

As the main plug is used to disconnect the unit from the mains, connect the unit to an easily accessible AC outlet. Should you notice an abnormality in the unit, disconnect the main plug from the AC outlet immediately.

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.

Do not expose batteries or apparatus with battery-installed to excessive heat such as sunshine, fire or the like.

CAUTION

The use of optical instruments with this product will increase eye hazard.

Except for customers in the U.S.A. and Canada

```
CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT
```

This appliance is classified as a CLASS 1 LASER product. This marking is located on the rear exterior.

European model only

Excessive sound pressure from earphones and headphones can cause hearing loss.

Notice for customers: the following information is only applicable to equipment sold in countries applying EU directives.

The manufacturer of this product is Sony Corporation, 1-7-1 Konan Minato-ku, Tokyo, 108-0075 Japan. The Authorized Representative for EMC and product safety is Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany. For any service or guarantee matters, please refer to the addresses given in separate service or guarantee documents.

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.
Applicable accessories: Remote commander

2^{GB}

Disposal of waste batteries (applicable in the European Union and other European countries with separate collection systems)

Pb

This symbol on the battery or on the packaging indicates that the battery provided with this product shall not be treated as household waste. By ensuring these batteries are disposed of correctly, you will help prevent potentially negative consequences for the environment and human health which could otherwise be caused by inappropriate waste handling of the battery. The recycling of the materials will help to conserve natural resources.

In case of products that for safety, performance or data integrity reasons require a permanent connection with an incorporated battery, this battery should be replaced by qualified service staff only. To ensure that the battery will be treated properly, hand over the product at end-of-life to the applicable collection point for the recycling of electrical and electronic equipment.

For all other batteries, please view the section on how to remove the battery from the product safely. Hand the battery over to the applicable collection point for the recycling of waste batteries.

For more detailed information about recycling of this product or battery, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

About this manual

- Icons, such as **C D**, listed at the top of each explanation indicate what kind of media can be used with the function being explained.
- The English on-screen display is used for illustration purposes only.
- The Control Menu items may be different depending on the disc.
- The Setup Menu items may be different depending on the area.
- The front panel may be different depending on the area.

Table of Contents

Additional Information

Playable discs

Type	Characteristics	Icon used in this manual	Logo
DVD VIDEO	• DVD VIDEO • DVD-R*/-RW*/+R/+RW in DVD VIDEO format * also in video mode	**DVD-V**	
VR mode	• DVD-R/-RW in VR (Video Recording) mode	**DVD-VR**	
VIDEO CD	• VIDEO CD • Super VCD* • CD-ROM*/-R*/-RW* * in VIDEO CD or Super VCD format	**VIDEO CD**	
CD	• AUDIO CD* • CD-R*/-RW* * in AUDIO CD format	**C D**	
DATA CD	• CD-ROM/-R/-RW in DATA CD format, containing MP3 audio tracks[1], JPEG image files[2] or DivX video files[3], and conforming to ISO 9660[4] Level 1 or Level 2, or Joliet (expansion format).	**DATA CD**	

Type	Characteristics	Icon used in this manual	Logo
DATA DVD	• DVD-ROM/-R/-RW/+R/+RW in DATA DVD format containing MP3 audio tracks[1], JPEG image files[2] or DivX video files[3], and conforming to UDF (Universal Disk Format).	DATA DVD	

This system can also play back discs with the following disc logos:

DVD+ReWritable DVD+ReWritable R W RW2 DVD+R DVD+R DL R4.7

[1] MP3 (MPEG 1 Audio Layer 3) is a standard format defined by ISO/MPEG which compresses audio data. MP3 audio tracks must be in MPEG 1 Audio Layer 3 format.

[2] JPEG image files must conform to the DCF image file format. (DCF "Design rule for Camera File System": Image standards for digital cameras regulated by Japan Electronics and Information Technology Industries Association (JEITA)).

[3] DivX video files must be recorded in DivX format with the extension ".AVI" or ".DIVX".

[4] A logical format of files and folders on CD-ROMs, defined by ISO (International Organization for Standardization).

"DVD+RW," "DVD-RW," "DVD+R," "DVD VIDEO," and the "CD" logos are trademarks.

Discs that cannot be played

- CD-ROMs recorded in PHOTO CD format
- DATA CDs recorded in MP3 PRO format
- Data part of CD-Extras[1]
- Data part of Mixed CDs[2]
- Super Audio CDs
- DVD Audio discs
- DVD-RAMs
- A DVD VIDEO with a different region code.
- A disc that has a non-standard shape (e.g., heart, square, star).
- A disc that has the adhesive cellophane tape or a sticker still left on it.

[1] CD-Extra: This format records audio (AUDIO CD data) on the tracks in session 1 and data on the tracks in session 2.

[2] Mixed CD: This format records data on the first track and audio (AUDIO CD data) on the second and subsequent tracks of a session.

Region code of DVD VIDEOs you can play back on this system

Your system has a region code printed on the back of the unit and will only play back DVD VIDEOs labeled with identical region code.
DVD VIDEOs labeled ⊕ will also be played back on this system.
If you try to play back any other region code DVD VIDEO, the message "Playback prohibited by area limitations." will appear on the TV screen. Depending on the DVD VIDEO, no region code indication may be labeled even though playing the DVD VIDEO is prohibited by area restrictions.

Note on DualDiscs

A DualDisc is a two sided disc product which mates DVD recorded material on one side with digital audio material on the other side. However, since the audio material side does not conform to the Compact Disc (CD) standard, playback on this product is not guaranteed.

Notes on CD-R/-RW and DVD-R/-RW/+R/+RW

- In some cases, CD-Rs/-RWs and DVD-Rs/-RWs/+Rs/+RWs cannot be played back on this system due to the recording quality or physical condition of the disc, or the characteristics of the recording device and authoring software. The disc will not be played back if it has not been correctly finalized. For more information, see the operation instructions for the recording device.
- Note that some playback functions may not work with some DVD+Rs/+RWs, even if they have been correctly finalized. In this case, view the disc by normal playback.
- A disc created in Packet Write format cannot be played back.

Note on playback operations of DVD VIDEOs and VIDEO CDs

Some playback operations of DVD VIDEOs and VIDEO CDs may be intentionally set by software producers. Since this system play back DVD VIDEOs and VIDEO CDs according to the disc contents the software producers designed, some playback features may not be available. Also, refer to the instructions supplied with the DVD VIDEOs or VIDEO CDs.

Music discs encoded with copyright protection technologies

This product is designed to play back discs that conform to the Compact Disc (CD) standard. Recently, various music discs encoded with copyright protection technologies are marketed by some record companies. Please be aware that among those discs, there are some that do not conform to the CD standard and may not be playable by this product.

Notes on Multi Session disc

- This system can play back Multi Session discs when an MP3 audio track, a JPEG image file or a DivX video file is contained in the first session. Any subsequent MP3 audio tracks, image files or DivX video files recorded in later sessions can also be played back.
- If the first session is recorded in AUDIO CD or VIDEO CD format, only the first session will be played back.
- The system will recognize a Multi Session disc as an AUDIO CD if there is a session recorded in AUDIO CD format on the disc. However, the system will only play back the disc if the first session is recorded in AUDIO CD format.
- With DATA CD or DATA DVD, the system will only play back DivX video files even if it contains MP3 audio tracks or JPEG image files.

Copyrights

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

- This system incorporates Dolby* Digital and the DTS** Digital Surround System.
  - * Manufactured under license from Dolby Laboratories.
    "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.
  - ** "DTS" is a registered trademark of DTS, Inc. and "DTS 2.0 + Digital Out" is a trademark of DTS, Inc.
- U.S. and foreign patents licensed from Dolby Laboratories.
- DivX® is a video file compression technology, developed by DivX, Inc. DivX, DivX Certified, and associated logos are trademarks of DivX, Inc. and are used under license.
- ATRAC, ATRAC3, ATRAC3plus and their logos are trademarks of Sony Corporation.
- MPEG Layer-3 audio coding technology and patents licensed from Fraunhofer IIS and Thomson.

THIS PRODUCT IS LICENSED UNDER THE MPEG-4 VISUAL PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER FOR

(i) ENCODING VIDEO IN COMPLIANCE WITH THE MPEG-4 VISUAL STANDARD ("MPEG-4 VIDEO")
AND/OR
(ii) DECODING MPEG-4 VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED BY MPEG LA TO PROVIDE MPEG-4 VIDEO.

NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION INCLUDING THAT RELATING TO PROMOTIONAL, INTERNAL AND COMMERCIAL USES AND LICENSING MAY BE OBTAINED FROM MPEG LA, LLC. SEE http://www. mpegla.com/

Guide to parts and controls

This manual mainly explains operations using the remote, but the same operations can also be performed using the buttons on the unit having the same or similar names.

Front panel
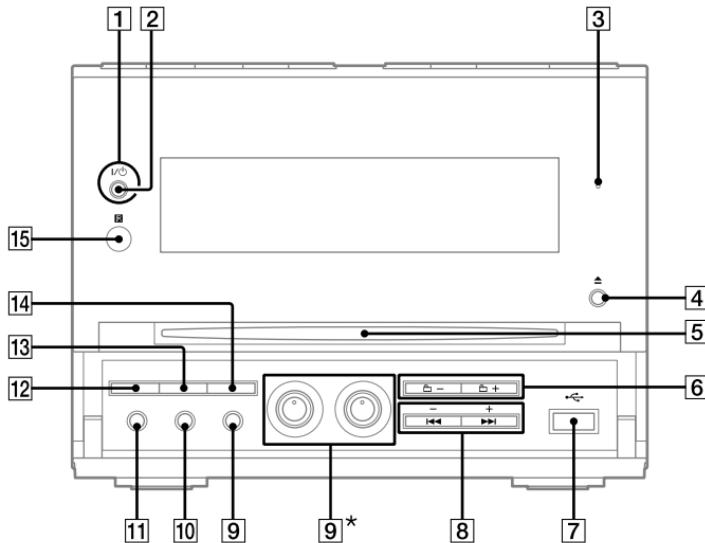
* ECHO LEVEL is not available in European and Russian models.

Top panel

11^{GB}
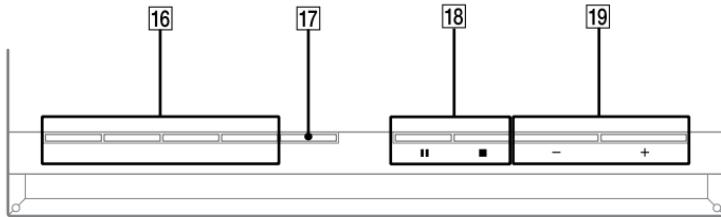
Remote control

1
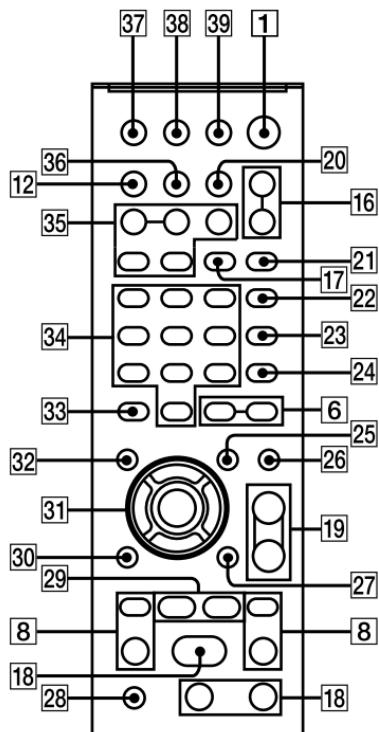
Unit: **I/**⏻ (on/standby) (23, 24, 60, 74, 89)
Remote: TV **I/**⏻[1] (on/standby) (22)

Press to turn on the system.
Press to turn on the TV.

2

STANDBY indicator (81)
Lights up when the system is turned off.

3

USB MEMORY indicator
Lights up when an optional USB device (Digital music player or USB storage media) is connected.

4

⏏ (eject) (29)
Press to eject the disc.

5

Disc slot

6

▱ +/− (26, 28, 63, 66)
Press to select an album.

7

⟷ (USB) port (62)
Connect to an optional USB device (Digital music player or USB storage media).

8

PRESET +/− (61)
Press to select the preset station.

⏮ /⏭ (go backward/
forward) (28, 43, 48, 63, 66)
Press to select a track or file.
Remote: TV CH +/−[1] (22)
Press to change the TV channels.
Remote: SLOW ◀𝟙/𝟙▶ (28)
Press to watch the slow-motion play.
Remote: TUNING +/− (60)
Press to tune in the desired station.
◀◀/▶▶ (rewind/fast forward)
(28, 63)
Press to find a point in a track or file.

9

ECHO LEVEL (67)
(Except for European and Russian
models)
Turn to adjust the microphone echo.

MIC LEVEL (67)
Turn to adjust the microphone volume.

MIC jack (67)
Connect to a microphone.

10

AUDIO IN jack (80)
Connect to an optional audio
component.

11

PHONES jack
Connect the headphones.

12

DISPLAY (63, 75)
Press to display the disc information or
clock in the front panel display.

13

PROGRESSIVE (21, 80)
Press to change the output video format
(Interlace or Progressive format).

14

DSGX (67)
Press to reinforce the bass.

15

IR Receptor

16

Unit: DVD ▶ (play) (21, 27)
Press to select the DVD function.
Press to start playback of a disc.

Unit: USB ▶ (play) (63, 66)
Press to select the USB function.
Press to start playback an optional USB
device (Digital music player or USB
storage media).

13^{GB}

Unit: TUNER/BAND (60)
Press to select the TUNER function.
Press to switch among FM and AM band.

Unit: AUDIO IN
Press to select the AUDIO IN function.

FUNCTION +/— (21, 27, 60, 62, 65, 67)
Press to select the function.

17
REPEAT/FM MODE (37, 61, 63)
Press to listen to a disc, a single track or file repeatedly.
Press to select FM reception mode (monaural or stereo).

18
■ (stop) (28, 60, 63)
❙❙ (pause) (28, 63)
Press to stop or pause playback.
Remote: ▷²⁾ (play) (27, 34, 42, 48, 53, 63, 66)
Press to start playback.

19
VOLUME +/—²⁾ (27, 63)
Press to adjust the volume.
TV VOL +/—¹⁾²⁾ (22)
Press to adjust the TV volume.

20
DIMMER (75)
Press to adjust the brightness of the display.

21
PICTURE NAVI (40)
Press to select the VIEWER format for searching the chapters, titles and tracks.
Press to display the thumbnail pictures.

22
AUDIO (30, 68, 69, 78)
Press to display the current audio signal on the TV screen.

23
SUBTITLE (29)
Press to switch the language of the subtitle (DVD VIDEO).

24

ANGLE (29)

Press to change the angle (DVD VIDEO with multi-angles only).

25

DVD/USB/TUNER MENU (38, 45, 61)

Press to display the MENU items on the TV screen.

Press to preset the radio station.

Press to select the play mode when using an optional USB device.

26

EQ (67)

Press to select the sound effect.

27

⊙ DISPLAY (25, 33, 38, 45, 49, 50, 55, 70, 79, 90)

Press to display the Control Menu on the TV screen.

28

TV[1)] (22)

Press to operate the TV functions.

29

ADVANCE •→ (28)

Press to advance the current scene during playback.

REPLAY ←• (28)

Press to replay the previous scene during playback.

◀❚❚ STEP/ STEP ❚❚▶ (28)

Press to play one frame at a time when playback is paused.

30

⤺ RETURN (32)

Press to return to the previous menu on the TV screen.

31

▲/▼/◀/▶ (23, 24, 33, 35, 36, 38, 42, 63, 65, 73)

Press to select the MENU items.

ENTER (23, 41, 61, 65)

Press to enter the settings.

32

DVD TOP MENU (38)

Press to display the DVD title on the TV screen.

33

CLEAR (34, 40, 66)

Press to delete a pre-programmed track or file.

-/--[1]

Press to enter a single digit or double digit number.

34

Numeric buttons[2] (22, 28, 31, 38, 52)

Press to select a track or file.
Press to enter a password or passcode.

10/0[1]

Press to enter a double digit number.

35

KEY CONTROL ♭/♯ (72)

Press to change the key to suit your vocal range.

SCORE (71)

Press to select the difficulty level for scoring mode.

KARAOKE MODE (68)

Press to select the Karaoke mode.

KARAOKE PON (72)

Press to activate the KARAOKE PON function.

36

TIME/TEXT (75)

Press to change the information in the front panel display.

37

TV/VIDEO[1] (21)

Press to switch the input sources.

SLEEP (73)

Press to set the Sleep Timer.

38

TIMER MENU (23, 73)

Press to set the clock and the timers.

39

THEATRE SYNC (26)

Press to activate the THEATRE SYNC function.

[1] This button is used to operate a Sony TV. For details, see "Operating a Sony TV" (page 22).
[2] The numeric button 5, TV VOL +, VOLUME + 19 and ▷ 18 buttons have a tactile dot. Use the tactile dot as a reference when operating the system.

Display

1 DVD USB   FM AM   ⏻ SLEEP ST MONO TUNED DSGX
15 DVD CD VCD MP3 ATRAC3 PLUS WMA AAC   ⌂ SHUF PGM REP 1   ▶ ▌▌   6
   TITLE CHAP TRK ⌂ ♫ ▲   PBC NTSC PROGRE   ◻◻◻ dts   7
                                                                                 8

14   13   12 11 10   9

DVD USB   FM AM   ⏻ SLEEP ST MONO TUNED DSGX
DVD CD VCD MP3 ATRAC3 PLUS WMA AAC   ⌂ SHUF PGM REP 1   ▶ ▌▌
TITLE CHAP TRK ⌂ ♫ ▲   PBC NTSC PROGRE   ◻◻◻ dts

16
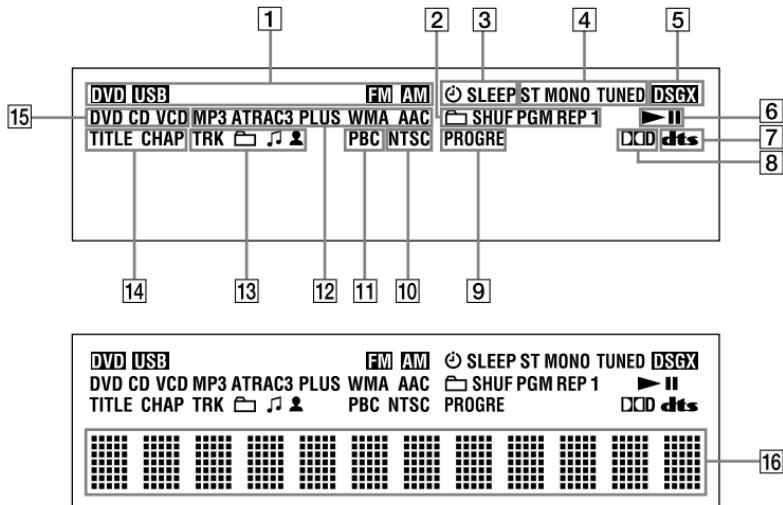
1 Indicates the selected function.

2 Indicates the selected play mode. (33)

3 Lights up when timer is set. (73)

4 Lights up when a station is tuned in. (60)

5 Lights up when DSGX is turned on. (67)

6 Indicates the Playback status.

7 Lights up when DTS is selected. (58)

8 Lights up when Dolby Digital is selected. (58)

9 Lights up when "P AUTO" or "P VIDEO" is selected. (21)

10 Lights up when the output video signal is NTSC. (21)

11 Lights up when playing VIDEO CD with PBC. (31)

12 Indicates the type of audio format.

13 Indicates the track/album information.

14 Lights up when chapter or title number is displayed.

15 Indicates the type of disc being played back. (27)

16 Displays the text information.

17GB

Hooking up the system
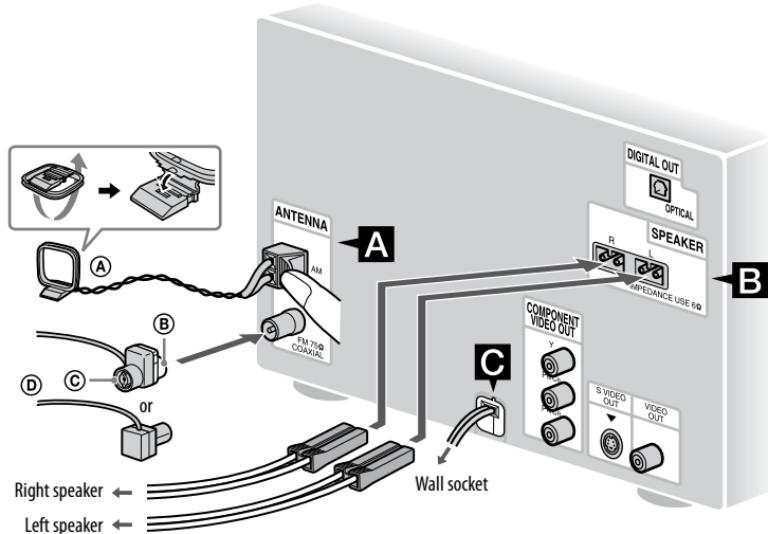
Ⓐ AM loop antenna
Ⓑ White side for North American model
Ⓒ Brown side for other regions
Ⓓ FM lead antenna (Extend it horizontally.)

A FM/AM antennas

Find a location and an orientation that provide good reception, and then set up the antenna.
Keep the antennas away from the speaker cords, the power cord to avoid picking up noise.

B Speakers

C Power

Connect the power cord to a wall socket. If the supplied adaptor on the plug does not fit your wall socket, detach it from the plug (only for models equipped with an adaptor).

Inserting two R6 (size AA) batteries into the remote

Slide and remove the battery compartment lid, and insert the two supplied R6 (size AA) batteries, ⊖ side first, matching the polarities shown below.
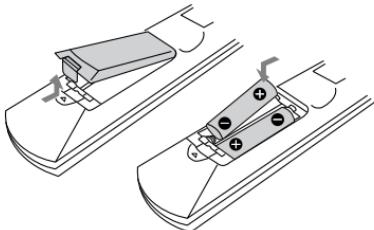
Note
If you do not use the remote for a long period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.

Tip
With normal use, the batteries should last for about six months. When the remote no longer operates the system, replace both batteries with new ones.

Attaching the speaker pads

Attach the supplied speaker pads at each corner on the bottom of the speakers to stabilize the speakers and to prevent them from slipping.
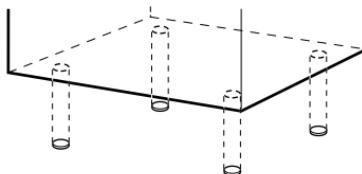
When carrying this system

Perform the following procedure to protect the DVD mechanism. Use buttons on the unit for the operation.

1 Press I/(¹) ⒈ to turn on the system, then press DVD ► ⒗.

2 Make sure that no disc is loaded in the system and check that "No Disc" appears.

3 Press I/(¹) ⒈ to turn off the system and check that "STANDBY" disappears.

4 Unplug the power cord.

19^{GB}

Hooking up the TV

Connect the video input jack of your TV to the VIDEO OUT jack with the supplied video cord.
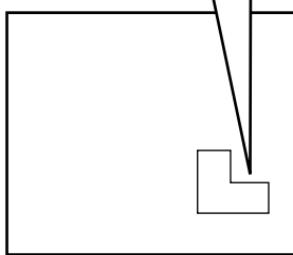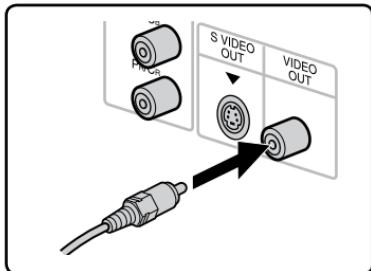
When connecting a video deck

Connect the video deck to the TV using a video cord (not supplied). However, do not connect this unit to the TV through the video deck. Otherwise, you may experience video leakage when watching video images from this system. Connect this unit directly to the TV as shown below.
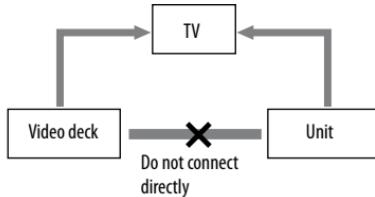
Tip

For higher quality video images:

— Use the optional component video cords to connect the COMPONENT VIDEO input jacks on your TV to the COMPONENT VIDEO OUT jacks of this unit. If your TV is compatible with progressive format file signals, use this connection and press PROGRESSIVE 14 on the unit repeatedly until "P AUTO" or "P VIDEO" appears in the display (page 21).

— You can use an optional S Video cord to connect the S VIDEO input jack on your TV to the S VIDEO OUT jack of this unit.

Changing the color system

(Except for European and Russian models)
Set the color system to PAL or NTSC depending on the color system of your TV.
The default setting for color system is different depending on the area.
Each time you perform the procedure below, the color system changes as follows:
NTSC ⟷ PAL

1 Press FUNCTION +/– ⑯ repeatedly to select "DVD" (or press DVD ► ⑯ on the unit).

2 Press I/⏻ ① to turn off the system.

3 Press DISPLAY ⑫ to display the clock.

4 While the clock is displayed, hold down II ⑱ then press I/⏻ ①.
The system turns on automatically and the color system is changed.
"COLOR NTSC" or "COLOR PAL" appears in the display.

Note
"--:--" appears in the display if you have not set the clock.

Changing the format of the video signal output from COMPONENT VIDEO OUT jacks

Progressive is a method for displaying TV images that reduces flickering and sharpens the image. To use this method, you need to connect to a TV that can accept progressive signals.
You can output video signals from COMPONENT VIDEO OUT jacks in Interlace or Progressive format.

1 Press FUNCTION +/– ⑯ repeatedly to select "DVD" (or press DVD ► ⑯ on the unit).

2 Press PROGRESSIVE ⑬ on the unit repeatedly.
Select "P AUTO" or "P VIDEO" if your TV accepts progressive signals and the TV is connected to the COMPONENT VIDEO OUT jacks. Otherwise, select "INTERLACE."

P AUTO (PROGRESSIVE AUTO):
The system automatically detects the software type and selects the appropriate conversion method.

P VIDEO (PROGRESSIVE VIDEO):
The system fixes the conversion method to PROGRESSIVE VIDEO for video-based software.
Select this if the image is not clear when you select "P AUTO."

21^{GB}

About DVD VIDEO software types and the conversion method

The DVD VIDEO software can be divided into 2 types:

- Film-based software
  Film-based software is derived from film and displays the images at 24 frames per second.
- Video-based software
  Video-based software is derived from TV, such as dramas and sitcoms and displays images at 30 frames or 60 fields per second.

Some DVD VIDEO contains both types of software. In order for these images to appear in your TV naturally when the video output is in progressive format, the progressive signals need to be converted to match your DVD VIDEO software.

Note
There would be no image on your TV or the image is not clear if your setting does not match your TV or connection.

When using a TV

Turn on the TV and select the video input so that you can view the pictures from this system.

Operating a Sony TV

You can use the following buttons to operate a Sony TV. These buttons have been marked in orange.

To	Press
Turn the TV on or off	TV I/⏻ ⎯1⎯ while holding down TV ⎯28⎯
Switch the TV's input source between the TV and other input sources	TV/VIDEO ⎯37⎯ while holding down TV ⎯28⎯
Select the TV channels	TV CH +/− ⎯8⎯ or numeric buttons ⎯34⎯* while holding down TV ⎯28⎯
Adjust the volume of the TV speaker(s)	TV VOL +/− ⎯19⎯ while holding down TV ⎯28⎯

* For double digit number, hold down TV ⎯28⎯ and press -/-- ⎯33⎯, then press the number. (For example, hold down TV ⎯28⎯, press -/-- ⎯33⎯, then 2 and 5 for entering 25.)

Setting the clock

Use buttons on the remote to set the clock.

1 Press I/⏻ **1** to turn on the system.

2 Press TIMER MENU **38**.
The hour indication flashes in the display.
If "PLAY SET?" flashes in the display, press ♠ or ♦ **31** repeatedly to select "CLOCK SET?," then press ENTER **31**.

3 Press ♠ or ♦ **31** repeatedly to set the hour.

4 Press ENTER **31**.
The minute indication flashes in the display.

5 Press ♠ or ♦ **31** repeatedly to set the minutes.

6 Press ENTER **31**.
The clock starts functioning.

Note
The clock settings are canceled when you disconnect the power cord or if a power failure occurs.

To display the clock when the system is off
Press DISPLAY **12**.
The clock is displayed for about 8 seconds.

Performing QUICK SETUP

Before using the system, you can make the minimum basic adjustments in QUICK SETUP. If you do not want to perform QUICK SETUP, press CLEAR 33 in step 3. The guide message will disappear from the TV screen.

1 Turn on your TV and select the video input.

2 Press I/(¹) 1 to turn on the system.

Note

Make sure there is no disc in the unit. Otherwise, the guide message does not appear. To perform QUICK SETUP, press ▲ 4 on the unit to remove the disc.

3 Press FUNCTION +/— 16 repeatedly to select "DVD" (or press DVD ► 16 on the unit).

The guide message appears at the bottom of the TV screen.

4 Press ENTER 31 without inserting a disc.

"LANGUAGE SETUP" appears on the TV screen.

```
LANGUAGE SETUP
OSD:                    ENGLISH
MENU:                   ENGLISH
AUDIO:                   FRENCH
SUBTITLE:               SPANISH
                     PORTUGUESE
```
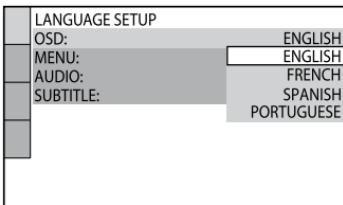
5 Press ✦ or ✦ 31 repeatedly to select a language, then press ENTER 31.

The setting is selected and "SCREEN SETUP" appears on the TV screen.

Tips

• The selected language is for "OSD," "MENU" and "SUBTITLE."
• The selectable language is different depending on the area.

6 Press ↑ or ↓ 31 repeatedly to select the setting that matches your TV type.

If you have a 4:3 standard TV:
Select "4:3 LETTER BOX" or "4:3 PAN SCAN" (page 57)

If you have a wide-screen TV or a 4:3 standard TV with wide-screen mode:
Select "16:9" (page 57)

7 Press ENTER 31.
The setting is selected and "QUICK SETUP is complete." appears on the TV screen.
The system is ready for playback.
If you want to change each setting individually, see "Using the DVD setup menu" (page 55).

To quit QUICK SETUP

Press ⌇ DISPLAY 27.

To recall QUICK SETUP display

1 Press ⌇ DISPLAY 27 when playback is stopped.
The Control Menu appears on the TV screen.

2 Press ↑ or ↓ 31 repeatedly to select [   ] (SETUP), then press ENTER 31.

3 Press ↑ or ↓ 31 repeatedly to select "QUICK," then press ENTER 31.

Note
The guide message appears at the bottom of the TV screen when you turn on the system for the first time or after performing "RESET" (page 89).

25^{GB}

Using the THEATRE SYNC function

THEATRE SYNC allows you to turn on your Sony TV and this system, changes the system's function to "DVD" and then switches the TV's input source you have set with just one button.

Preparing to use the THEATRE SYNC function

Register the TV's input source connected to this system.

To select the TV's input
Press the following buttons while holding down SLEEP 37.

Press	TV's input source
0	No input source (Default)
1 to 8	VIDEO 1 to VIDEO 8
9	COMPONENT 1
CLEAR 33	COMPONENT 2
🗁 − 6	COMPONENT 3
🗁 + 6	COMPONENT 4

The selected TV's input source is memorized into the remote.

Operating the THEATRE SYNC function

Keep the remote pointed in the direction of the TV until the TV is turned on and the input source is changed correctly, then press THEATRE SYNC 39.

If this function does not work, change the transmission time. The transmission time varies depending on the TV.

To change the transmission time
Press the following buttons while holding down ▶▶| 8.

Press	Transmission time
1	0.5 (Default)
2	1
3	1.5
4	2
5	2.5
6	3
7	3.5
8	4

Disc

Playing a disc
— Normal Play

DVD-V DVD-VR VIDEO CD C D DATA CD
DATA DVD

Depending on the DVD VIDEO or
VIDEO CD, some operations may
be different or restricted. Refer to the
operating instructions supplied with the
disc.

Example: When playing a DVD VIDEO

Title number   Elapsed playing time

1 Press FUNCTION +/— 16
repeatedly to select "DVD" (or
press DVD ▶ 16 on the unit).

2 Insert a disc in the disc slot 5
with the label side facing up.
If the playback does not start
automatically, press ▷ 18 (or DVD
▶ 16 on the unit).
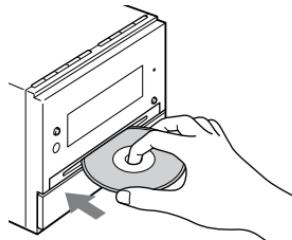
3 Press VOLUME +/— 19 to adjust
the volume.

Notes
• Depending on the system status, the volume
level may not appear on the TV screen.
• When you turn on the system, the disc is not
pulled into the disc slot 5 until "No Disc"
appears in the display. Do not attempt to
push in the disc until "No Disc" appears.
• Do not load an 8 cm disc with an adaptor.
Doing so may cause the system to
malfunction.
• When you remove a disc, handle the disc by
its edge and pull it straight out of the disc slot
5. Do not touch the surface.

Other operations

To	Press
Stop playback	■ 18.
Pause playback	‖ 18. Press ‖ 18 again or ▷ 18 (or DVD ► 16 on the unit) to resume playback.
Select a track[1], chapter or video file	◄◄ or ►►I 8 repeatedly during playback. Or, press the numeric buttons 34 when the Control Menu is turned off, then press ENTER 31[2].
Select an album[3]	📁 +/– 6 repeatedly during playback or when playback is paused.
Locate a point quickly in fast forward or fast reverse (Lock Search)[4][5]	◄◄ or ►► 8 during playback. Each time you press ◄◄ or ►► 8, the playback speed changes cyclically. To return to normal playback, press ▷ 18 (or DVD ► 16 on the unit).
Watch frame by frame (Slow-motion Play)[6]	SLOW ◄‖ or SLOW ‖► 8 when playback is paused. Each time you press SLOW ◄‖ or SLOW ‖► 8, the playback speed changes. To return to normal playback, press ▷ 18 (or DVD ► 16 on the unit).
Play one frame at a time (Freeze Frame)[6]	STEP ‖► 29 to go to the next frame when playback is paused. Press ◄‖ STEP 29[7] to go to the preceding frame when playback is paused. To return to normal playback, press ▷ 18 (or DVD ► 16 on the unit).
Replay the previous scene	REPLAY ◄• 29 during playback. (Instant Replay)[7]
Briefly fast forward the current scene	ADVANCE •► 29 during playback. (Instant Advance)[7]

To	Press
Switch to DVD function from another source	FUNCTION +/− 16 repeatedly (or press DVD ► 16 on the unit) (Automatic Source Selection).
Remove the disc	▲ 4 on the unit.

[1] You cannot select an audio track during Lock Search operation of MP3 audio tracks.
[2] DVD VIDEO, DVD-R/-RW in VR mode, VIDEO CD, AUDIO CD and DivX video files only.
[3] MP3 audio tracks, JPEG image files and DivX video files only.
[4] Except for JPEG image files.
[5] Depending on the disc, the actual speed may differ.
[6] DVD VIDEO, DVD-R/-RW in VR mode, DivX video files and VIDEO CD only.
[7] DVD VIDEO and DVD-R/-RW in VR mode only.

Notes
- You cannot search for a still picture on a DVD-R/-RW in VR mode.
- You may not be able to use the Instant Replay or Instant Advance function in Repeat Play mode or with some scenes.

Displaying multi-angles and subtitles

Changing the angles

(DVD VIDEO only)
You can change the viewing angle while playing a DVD VIDEO on which various angles (multi-angles) for a scene are recorded.

Press ANGLE 24 repeatedly during playback. Each time you press ANGLE 24, the angle changes.

Note
Depending on the DVD VIDEO, you may not be able to change the angle, even if multi-angles are recorded on the DVD VIDEO.

Displaying the subtitles

(DVD VIDEO, DVD-R/-RW in VR mode and DivX video files only)
You can turn the subtitles on or off while playing a DVD VIDEO, DVD-R/-RW in VR mode or DivX video files on which subtitles are recorded. You can also change the language of the subtitles with DVD VIDEO, DVD-R/-RW in VR mode or DivX video files on which multilingual subtitles are recorded.

Press SUBTITLE 23 repeatedly during playback. Each time you press SUBTITLE 23, the subtitle language changes or turns off.

Disc

29^{GB}

Notes

- Depending on the DVD VIDEO, you may not be able to change the subtitles even if multilingual subtitles are recorded on the DVD VIDEO. You also may not be able to turn the subtitles off.
- You can change the subtitles if the DivX video file has an ".AVI" or ".DivX" extension and contains subtitle information within the same file.

Other useful functions

Changing the sound

When playing a DVD VIDEO or a DivX video file recorded in multiple audio formats, you can select the audio format you want. If the DVD VIDEO is recorded with multilingual tracks, you can also change the language.

When playing a VIDEO CD, AUDIO CD or MP3 audio tracks, you can select the sound from the right or left channel and listen to the sound of the selected channel through the right and left speakers. For example, when playing a track with the vocals on the right channel and the instruments on the left channel, you can hear the instruments from both speakers by selecting the left channel.

Press AUDIO 22 repeatedly during playback to select the audio signal you want.

The default settings are underlined.

When playing a DVD VIDEO:
Depending on the DVD VIDEO, the option of language and audio format varies.
When a 4-digit number is displayed, the digits represent a language code (see "Language code list" (page 101)). When the same language is displayed two or more times, the DVD VIDEO is recorded in multiple audio formats. Note that the sound changes automatically depending on the disc.

When playing a DVD-R/-RW in VR mode:
The number of audio tracks recorded on a disc is displayed.
Example:

- 1: MAIN: the main sound of the audio track 1.
- 1: SUB: the sub sound of the audio track 1.
- 1: MAIN+SUB: the main and sub sound of the audio track 1.
- 2: MAIN*: the main sound of the audio track 2.
- 2: SUB*: the sub sound of the audio track 2.
- 2: MAIN+SUB*: the main and sub sound of the audio track 2.

* These items do not appear if only one audio stream is recorded on the disc being played back.

When playing a DivX video file:
The options for audio format differ depending on the DivX video files.

When playing a VIDEO CD, AUDIO CD, or MP3 audio track:
- <u>STEREO</u>: the standard stereo sound.
- 1/L: the sound of the left channel (monaural).
- 2/R: the sound of the right channel (monaural).

When playing a Super VCD:
- <u>1: STEREO</u>: the stereo sound of the audio track 1.
- 1: 1/L: the sound of the left channel of the audio track 1 (monaural).
- 1: 2/R: the sound of the right channel of the audio track 1 (monaural).
- 2: STEREO: the stereo sound of the audio track 2.
- 2: 1/L: the sound of the left channel of the audio track 2 (monaural).
- 2: 2/R: the sound of the right channel of the audio track 2 (monaural).

Playing VIDEO CDs with PBC functions (Version 2.0) — PBC Playback

(VIDEO CD only)
You can use the PBC (Playback Control) menus on your TV screen to enjoy the disc's interactive software. The menu format and structure may differ depending on each disc.

1 Press ▷ 18 (or DVD ► 16 on the unit) to start playing a VIDEO CD with PBC functions (Version 2.0).
The PBC menu appears on the TV screen. Depending on the VIDEO CD, the menu may not appear.

2 Press the numeric buttons 34 to select the item number you want.

3 Press ENTER 31.
Depending on the VIDEO CD, "Press ENTER" may appear as "Press SELECT" in the operating instructions supplied with the disc. In this case, press ▷ 18 (or DVD ► 16 on the unit).

4 Continue playback according to the instructions on the menus.
Refer to the operating instructions supplied with the VIDEO CD, as the operating procedure may differ depending on the VIDEO CD.

To return to the previous menu
Press ⌁ RETURN 30.

Note
PBC playback is canceled when Shuffle Play, Program Play or Repeat Play is activated.

To cancel playback with PBC functions

1 Press I◀◀ or ▶▶I 8 repeatedly or press the numeric buttons 34 to select a track when playback is stopped.

2 Press ▷ 18 (or DVD ▶ 16 on the unit) or ENTER 31.
   Playback starts from the selected track. Still images, such as the menu screens, will not be shown.
   To return to PBC playback, press ■ 18 twice, then press ▷ 18 (or DVD ▶ 16 on the unit).

Resuming playback from the point you stopped the disc — Resume Play

This system memorizes the point where you stopped the disc so you can resume playback from that point. Resume Play is not canceled when you turn off the system except for MP3 audio tracks, JPEG image files and DivX video files.

1 While playing a disc, press ■ 18 to stop playback.
   "Resume" appears in the display.
   If "Resume" does not appear, Resume Play is not available.

2 Press ▷ 18 (or DVD ▶ 16 on the unit).
   The system starts playback from the point you stopped the disc in step 1.

Notes
- You cannot perform Resume Play during Shuffle Play or Program Play.
- This function may not work properly with some discs.
- Resume Play is canceled when
  – you press ■ 18 when playback is stopped.
  – you eject the disc.
  – you change the function.
  – you change the settings in the Setup Menu.
- Depending on where you stopped the disc, the system may not resume playback from the exact same point.
- If "MULTI-DISC RESUME" is set to "ON," Resume Play is not canceled for DVD VIDEO and VIDEO CD when you eject the disc or change the function.

Tip
To play back from the beginning of the disc, press ■ 18 twice, then press ▷ 18 (or DVD ▶ 16 on the unit).

Resuming playback of a disc that was stopped — Multi-disc Resume

(DVD VIDEO and VIDEO CD only)
This system can store the point where you stopped the playback of the disc for up to 40 discs and resumes playback when you insert the same disc again. If you store a playback resume point for the 41st disc, the playback resume point for the first disc will be deleted.
To activate this function, set "MULTI-DISC RESUME" in "CUSTOM SETUP" to "ON" (page 58).

Note
If "MULTI-DISC RESUME" in "CUSTOM SETUP" is set to "ON" and you play back a recorded disc such as DVD-R, the system may play back other recorded disc from the same playback resume point. To start playback from the beginning of the disc, press ■ 18 twice and then press ▷ 18 (or DVD ▶ 16 on the unit).

Using play mode

Creating your own program

— Program Play

VIDEO CD   CD

You can make a program of up to 99 steps in the order you want them to be played back.

1 Press ⊡ DISPLAY 27.
The Control Menu appears on the TV screen.

2 Press ↑ or ↓ 31 repeatedly to select ▯ 🎬 (PROGRAM), then press ENTER 31.
The options for "PROGRAM" appear on the TV screen.

3 Press ↑ or ↓ 31 repeatedly to select "SET→," then press ENTER 31.

```
PROGRAM                    0 : 00 : 00
                           T
 ALL CLEAR
 1.TRACK      – –           – –
 2.TRACK      – –           01
 3.TRACK      – –           02
 4.TRACK      – –           03
 5.TRACK      – –           04
 6.TRACK      – –           05
 7.TRACK      – –           06
          ▼
```

Track number

33^{GB}
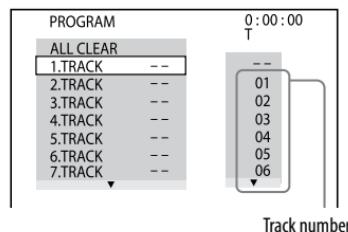
4 Press ➜ 🖸.

The cursor moves to the track list "T" (in this case, "01").

```
PROGRAM              0 : 00 : 00
                     T
ALL CLEAR
1:TRACK      – –     – –
2:TRACK      – –     01
3:TRACK      – –     02
4:TRACK      – –     03
5:TRACK      – –     04
6:TRACK      – –     05
7:TRACK      – –     06
        ▼                ▼
```
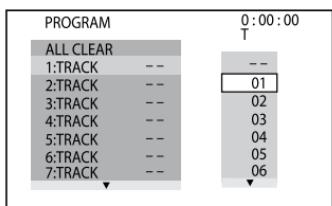
To change a programmed step:
Press ♦ or ♦ 🖸 repeatedly to select the programmed step number you want to change. Then, press ➜ 🖸.

To delete a programmed step:
Press ♦ or ♦ 🖸 repeatedly to select the programmed step number you want to change. Then, press CLEAR 🗠.

To delete all of the programmed steps in the program list:
Press ♦ 🖸 to select "ALL CLEAR." Then, press ENTER 🖸.

5 Select the track you want to program.

For example, select track "02." Press ♦ or ♦ 🖸 repeatedly to select "02" under "T," then press ENTER 🖸.

Selected track

```
PROGRAM              0:15:30
                     T
ALL CLEAR
1:TRACK      0 2     – –
2:TRACK      – –     01
3:TRACK      – –     02
4:TRACK      – –     03
5:TRACK      – –     04
6:TRACK      – –     05
7:TRACK      – –     06
        ▼                ▼
```

Total time of the programmed tracks
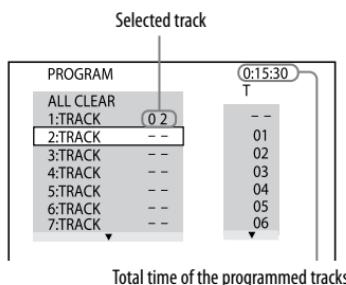
6 To program other tracks, repeat steps 4 to 5.

7 Press ▷ 🖸 (or DVD ► 🖸 on the unit).

Program Play starts.
When the Program Play ends, you can restart the same program by pressing ▷ 🖸 (or DVD ► 🖸 on the unit).

To cancel Program Play

Press CLEAR 33 or select "OFF" in step 3. To play back the same program again, select "ON" in step 3 and press ENTER 31.

To turn off the Control Menu

Press ◎ DISPLAY 27 repeatedly until the Control Menu disappears from the TV screen.

Notes
- When Program Play is activated, the "REPEAT" setting is automatically changed to "ON" if the current setting is "DISC" or "TRACK."
- You cannot perform Program Play with VIDEO CDs during PBC playback.

Tip
The Program Play is canceled and the program list is cleared when
- you eject the disc.
- you turn off the system.
- you change the function.

Playing in random order

— Shuffle Play

VIDEO CD   C D   DATA CD   DATA DVD

You can play back the tracks on the current disc in random order. Each time you perform Shuffle Play, the playing order may differ.

1 Press ◎ DISPLAY 27 during playback.

The Control Menu appears on the TV screen.

2 Press ♠ or ♦ 31 repeatedly to select ▌ 🎵 (SHUFFLE), then press ENTER 31.

The options for "SHUFFLE" appear on the TV screen.

3 Press ♠ or ♦ 31 repeatedly to select the setting you want.

When playing a VIDEO CD or AUDIO CD:
- TRACK: all tracks on the disc is played back randomly.

When Program Play is activated:
- ON: all tracks in the program list is played back randomly.

Disc

When playing a DATA CD/DVD (except for DivX video files):

- ON: all MP3 audio tracks in the selected album on the disc are played back randomly.
  When no album is selected, the first album is played back randomly.

4 Press ENTER 31.

Shuffle Play starts.
To cancel Shuffle Play, press CLEAR 33 or select "OFF" in step 3.

To turn off the Control Menu

Press ⊙ DISPLAY 27 repeatedly until the Control Menu disappears from the TV screen.

Notes

- Shuffle Play is canceled when
  — you eject the disc.
  — you turn off the system.
  — you change the function.
  — you perform Track/Index Search.
- You cannot perform Shuffle Play with VIDEO CDs during PBC playback.
- The same song may be played back repeatedly for MP3 audio tracks.

Playing repeatedly

— Repeat Play

`DVD-V` `DVD-VR` `VIDEO CD` `C D` `DATA CD` `DATA DVD`

You can play back all the titles, tracks, files or a single title, chapter, track or file on a disc repeatedly.
You can select Shuffle Play and Program Play at the same time.

1 Press ⊙ DISPLAY 27 during playback.

The Control Menu appears on the TV screen.

2 Press ↑ or ↓ 31 repeatedly to select ▮ ⟳ (REPEAT), then press ENTER 31.

The options for "REPEAT" appear on the TV screen.

3 Press ↑ or ↓ 31 repeatedly to select the setting you want.

The default setting is underlined.

When playing a DVD VIDEO or DVD-R/DVD-RW in VR mode:

- OFF: does not play back repeatedly.
- DISC: repeats all the titles on the disc.
- TITLE: repeats the current title.
- CHAPTER: repeats the current chapter.

When playing a VIDEO CD or AUDIO CD:

- OFF: does not play back repeatedly.
- DISC: repeats all the tracks on the disc.
- TRACK: repeats the current track.

When playing a DATA CD or DATA DVD:

- OFF: does not play back repeatedly.
- DISC: repeats all the albums on the disc.
- ALBUM: repeats the current album.
- TRACK[1]: repeats the current track.
- FILE[2]: repeats the current file.

[1] MP3 audio tracks only.
[2] DivX video files only.

When Program Play or Shuffle Play is activated:

- OFF: does not play back repeatedly.
- ON: repeats the Program Play or Shuffle Play.

4 Press ENTER 31.

Repeat Play starts.
To cancel Repeat Play, press CLEAR 33 or select "OFF" in step 3.

To turn off the Control Menu

Press ⊙ DISPLAY 27 repeatedly until the Control Menu disappears from the TV screen.

Notes

- You can also change the Repeat Play setting by pressing REPEAT/FM MODE 17 repeatedly.
- "REP" lights up in the display when Repeat Play is set to "DISC," "ALBUM" or "ON."
- "REP1" lights up in the display when Repeat Play is set to " TITLE," "CHAPTER," "TRACK" or "FILE."
- Depending on the DVD VIDEO, you cannot perform Repeat Play.
- You cannot perform Repeat Play with VIDEO CDs during PBC playback.
- When playing a DATA CD/DVD which contains MP3 audio tracks and JPEG image files, the audio sound will not match the image if their playing time are different.
- You cannot select "TRACK" when "MODE (MP3, JPEG)" is set to "IMAGE (JPEG)" (page 45).
- Repeat Play is canceled when
  - you eject the disc.
  - you turn off the system.
  - you change the function.

Searching/selecting a disc

Playing DVD VIDEOs using the menu

DVD-V

Some DVD VIDEOs have menus to help you enjoy the DVD VIDEOs. You can play back DVD VIDEOs using these menus on the TV screen.

Using DVD TOP MENU

A DVD VIDEO contains a lot of sections of picture or music feature called "title." When you play back a DVD VIDEO which contains several titles, you can select the title you want using DVD TOP MENU 32.

Using DVD MENU

Some DVD VIDEOs allow you to select the disc contents using a menu. When you play back these DVD VIDEOs, you can select items such as the language for the subtitles and the language for the sound using DVD/USB/TUNER MENU 25.

1 Press DVD TOP MENU 32 or DVD/USB/TUNER MENU 25.
The menu appears on the TV screen. The contents of the menu vary depending on the disc.

2 Press ↑/↓/←/→ 31 or the numeric buttons 34 to select the title or item you want to play back.

3 Press ENTER 31.

Selecting "ORIGINAL" or "PLAY LIST" on a DVD-R/-RW in VR mode

DVD-VR

This function is only available for DVD-Rs/-RWs in VR mode with a playlist created.

1 Press ⊙ DISPLAY 27 when playback is stopped.
The Control Menu appears on the TV screen.

2 Press ↑ or ↓ 31 repeatedly to select ⬛ 🔁 (ORIGINAL/PLAY LIST), then press ENTER 31.

The options for "ORIGINAL/PLAY LIST" appear on the TV screen.

3 Press ↑ or ↓ 31 repeatedly to select the setting you want.

• PLAY LIST: play back according to the playlist created on the disc.
• ORIGINAL: play back according to the originally recorded sequence.

4 Press ENTER 31.

Using the on-screen display to search for a title/chapter/ scene/track/index/album/file

DVD-V **DVD-VR** **VIDEO CD** **C D** **DATA CD**
DATA DVD

You can search by different information recorded on a disc, such as title, track, and album. Each item is assigned a unique number on the disc, and you can select the numbered item you want from the Control Menu. You can also search for a particular point using the time code (Time Search) (DVD VIDEO and DVD-R/-RW in VR mode only).

1 Press ⬭ DISPLAY 27. (When playing a DATA CD/DVD with JPEG image files, press ⬭ DISPLAY 27 twice.)

The Control Menu appears on the TV screen.

2 Press ↑ or ↓ 31 repeatedly to select the search item.

Example: when you select 🎬 (CHAPTER)
"** (**)" is selected (** refers to a number). The number in parentheses indicates the total number of titles, chapters, tracks, indexes, scenes, albums or files.

```
 1 2 ( 2 7 )                          ▶
 1 8 ( 3 4 )              DVD VIDEO
 T   1 : 3 2 : 5 5

                         Selected row
```
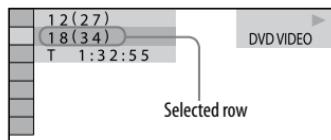
3 Press ENTER 31.
"** (**)" change to "– – (**)."

4 Press ↑ or ↓ 31 repeatedly or the numeric buttons 34 to select the title, track, album, etc. or file number.

If you make a mistake, press CLEAR 33 to cancel the number.

Disc

Continued ⟶

39^{GB}

5 Press ENTER 31.

The system starts playback from the selected title, track, album, etc.

To turn off the Control Menu

Press ⚏ DISPLAY 27 repeatedly until the Control Menu disappears.

Tip
When the Control Menu display is turned off, you can search for a chapter (DVD VIDEO and DVD-R/-RW in VR mode) or track (AUDIO CD and VIDEO CD) or file (DivX video files in DATA CD/DVD) by pressing the numeric buttons 34 and ENTER 31.

To search for a particular point using the time code — Time Search

(DVD VIDEO and DVD-R/-RW in VR mode only)

1 Press ⚏ DISPLAY 27.

2 Press ✦ or ✦ 31 repeatedly to select ▣ (TIME/TEXT).

"T **:**:**" (elapsed playing time of the current title) is selected.

3 Press ENTER 31.

"T **:**:**" changes to "T--:--:--."

4 Input the time code using the numeric buttons 34, then press ENTER 31.

For example, to find the scene at 2 hours, 10 minutes, and 20 seconds after the beginning, enter "2:10:20." If you make a mistake, press CLEAR 33 to cancel the number.

Note
Depending on the disc, you cannot perform Time Search.

Searching by scene

— Picture Navigation

DVD-V **VIDEO CD**

1 Press PICTURE NAVI 21 repeatedly to select the VIEWER format you want to search in.

- CHAPTER VIEWER (DVD VIDEO)
- TITLE VIEWER (DVD VIDEO)
- TRACK VIEWER (VIDEO CD or Super VCD)

2 Press ENTER 31.

The first scene of the first 9 chapters, titles or tracks appears. If there are more than 9 chapters, titles, or tracks, "▼" appears at the bottom right of the screen.

1	2	3	
4	5	6	
7	8	9	▼

3 Press ✦/✦/✦/➔ 31 to select a chapter, title or track, then press ENTER 31.

The system starts playing from the selected scene.

To cancel searching

Press ↷ RETURN 30 or ☐ DISPLAY 27.

Note
Depending on the disc, you may not be able to select some items.

Tip
To display the remaining chapters, titles, or tracks, select a scene at the bottom row and press ✦ 31. To return to the previous scene, select a scene at the top row and press ✦ 31.

Playing MP3/JPEG discs

DATA CD **DATA DVD**

Notes
- Depending on the software you use to create the DATA CD or DATA DVD, the playback order may differ.
- The system can play back up to 200 albums, including albums that do not contain MP3 audio tracks and JPEG image files. The system will not play back any albums beyond the 200th album.
- The maximum number of MP3 audio tracks or JPEG image files on an album which this system can recognize is:
  - 600 when "MODE (MP3, JPEG)" is set to "AUDIO (MP3)" or "IMAGE (JPEG)."
  - 300 when "MODE (MP3, JPEG)" is set to "AUTO."
- The system can play back MP3 audio tracks and JPEG image files. The system will play back any data with the extension ".MP3", ".JPG" or ".JPEG" even if they are not in MP3 or JPEG format. Playing this data may generate a loud noise which could damage your speaker system.

Disc

- Depending on the encoding/writing software, recording device, or the recording media used to record an MP3 audio track, you may encounter problems such as cannot play back, sound interruptions and noise.
- The following discs/situations can increase the time it takes to start playback:
  – a disc recorded with a complicated tree structure.
  – a disc recorded in Multi Session.
  – a disc to which data can be added (non-finalized disc).
  – when the tracks or files in another album have just been played back.
- Some CD-Rs/-RWs or DVD-Rs/-RWs/+Rs/+RWs cannot be played back on the system depending on the file format.
- When playing a DATA CD or DATA DVD containing both MP3 audio tracks and JPEG image files, select "MODE (MP3, JPEG)" from the Control Menu after the disc's TOC reading is complete. If you want to play back
  – both MP3 audio tracks and JPEG image files, set "MODE (MP3, JPEG)" to "AUTO."
  – MP3 audio tracks only, set "MODE (MP3, JPEG)" to "AUDIO (MP3)."
  – JPEG image files only, set "MODE (MP3, JPEG)" to "IMAGE (JPEG)."
- The system can play back to a depth of 8 folders only.

Selecting an MP3 audio track or album

1 Insert a disc in the disc slot [5].

The system starts playing the first album.

2 Press DVD/USB/TUNER MENU [25].

The album list appears on the TV screen.

```
        3 ( 30 )

ROCK BEST HIT
KARAOKE
MY FAVOURITE SONG
R & B
JAZZ
CLASSIC
SALSA OF CUBA
BOSSA NOVA
                      ▼
```

3 Press ↑ or ↓ [31] repeatedly to select an album.

Playing an album:
Press ▷ [18] (or DVD ► [16] on the unit).
The system starts playback from the first track of the selected album.
To stop playback, press ■ [18].

Playing a track:

1 Press ENTER ㉛.
The list of MP3 audio tracks of the selected album appears.

```
 ♬  M Y  F A V O U R I T E  S O N G
 ♬    1 ( 2 5 6 )

W A L T Z  F O R  D E B B Y
M Y  R O M A N C E
M I L E S  T O N E S
M Y  F U N N Y  V A L E N T I N E
A U T U M N  L E A V E S
A L L  B L U E S
S O M E D A Y  M Y  P R I N C E  W...
                ▼
```
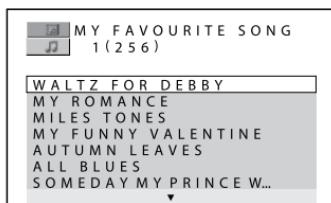
2 Press ✚ or ✚ ㉛ repeatedly to select the MP3 audio track you want, then press ENTER ㉛.
The system starts playing the selected MP3 audio track.
To stop playback, press ■ ⑱.

To display the next or previous page of track list or album list

Press ◀ or ▶ ㉛ repeatedly when the track list or album list is displayed.

To play back the next album of MP3 audio tracks

You can select the next album by pressing ▶▶I ⑧ repeatedly until the last track of the current album, then press ▶▶I ⑧ once. The first track of the next album is selected. However, you cannot select the previous album by pressing I◀◀ ⑧ repeatedly. To select the previous album, select the album from the album list.

To return to the album list when the track list is displayed

Press ♂↰ RETURN ㉚.

To turn on or off the album list or track list

Press DVD/USB/TUNER MENU ㉕ repeatedly.

Selecting a JPEG image file or album

1 Insert a disc in the disc slot ⑤.
The system starts playing the first album.

2 Press DVD/USB/TUNER MENU ㉕.
The album list appears on the TV screen.

3 Press ✚ or ✚ ㉛ repeatedly to select an album.

Playing an album:
Press ▷ ⑱ (or DVD ▶ ⑯ on the unit).
The system starts a slide show from the first image file of the selected album.
To stop playback, press ■ ⑱.

43GB

Disc

Playing an image file:

1 Press PICTURE NAVI 21.
Thumbnail picture for the first 16 JPEG image files in the selected album is displayed.

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

If there are more than 16 image files in the selected album, the scroll bar appears at the right.

2 Press ↑/↓/←/→ 31 to select the image you want to view, then press ▷ 18 (or DVD ▶ 16 on the unit).
The slide show starts from the selected image file.
To stop playback, press ■ 18.
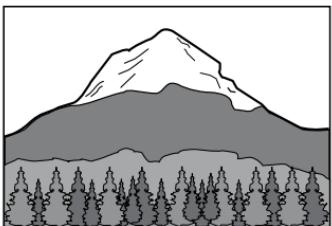
To display the next or previous page of album list

Press ← or → 31 repeatedly when the album list is displayed.

To display the next or previous JPEG image file

Press ← or → 31 repeatedly during the slide show.

To play back the next album of JPEG image files

You can select the next album by pressing → 31 repeatedly until the last file of the current album, then press → 31 once. The first file of the next album is selected. However, you cannot select the previous album by pressing ← 31 repeatedly. To select the previous album, select the album from the album list.

To turn on or off the display of album list

Press DVD/USB/TUNER MENU 25 repeatedly.

To rotate a JPEG image file

When a JPEG image file is displayed on the TV screen, you can rotate the image by 90 degrees.
Press ↑ or ↓ 31 repeatedly while viewing an image.
Press CLEAR 33 to return to the original view.

Notes

- The PICTURE NAVI 21 button does not work when "MODE (MP3, JPEG)" is set to "AUDIO (MP3)."
- When you press ← or → 31 to select the next or previous image, the image will return to its original view even if you have rotated the image previously.
- The slide show stops when you press ↑ or ↓ 31.

Playing MP3 audio tracks and JPEG image files as a slide show with sound

DATA CD **DATA DVD**

You can play back a slide show with sound by first placing both JPEG image files and MP3 audio tracks in the same album on a DATA CD/DVD.

1 Insert a disc in the disc slot 5.

The system starts playing the first album.

2 Press ■ 18 to stop playback.

3 Press ⬚ DISPLAY 27.

The Control Menu appears on the TV screen.

4 Press ↑ or ↓ 31 repeatedly to select ⬚ (MODE (MP3, JPEG)), then press ENTER 31.

The options for "MODE (MP3, JPEG)" appear on the TV screen. The default setting is underlined.

- <u>AUTO</u>: Plays back both JPEG image files and MP3 audio tracks in the same album as a slide show with sound.
- AUDIO (MP3): Plays back MP3 audio tracks continuously.
- IMAGE (JPEG): Plays back JPEG image files as a slide show.

5 Press ↑ or ↓ 31 repeatedly to select "AUTO," then press ENTER 31.

6 Press DVD/USB/TUNER MENU 25.

The album list appears on the TV screen.

Disc

45^{GB}

7 Press ↑ or ↓ 31 repeatedly to select the album you want, then press ▷ 18 (or DVD ▶ 16 on the unit).

The slide show with sound starts from the selected album.

To stop playback, press ■ 18.

To turn on or off the display of album list

Press DVD/USB/TUNER MENU 25 repeatedly.

To cancel slide show with sound

Select "AUDIO (MP3)" or "IMAGE (JPEG)" in step 4.

Notes

- In some cases, you cannot change the "MODE (MP3, JPEG)" setting when "MODE (MP3, JPEG)" has been set to
  — "IMAGE (JPEG)" and the selected disc only contains MP3 audio tracks.
  — "AUDIO (MP3)" and the selected disc only contains JPEG image files.
- If there are no MP3 audio tracks in the disc, "No audio data" appears on the TV screen and the disc cannot be played back.
- If there are no JPEG image files in the disc, "No image data" appears on the TV screen and the disc cannot be played back.
- If you play back a large data size of MP3 audio tracks and JPEG image files at the same time, the sound may skip.

Specifying the slide show speed

(JPEG image files only)

1 Press ⊡ DISPLAY 27 repeatedly until the Control Menu for JPEG image files appears on the TV screen.

2 Press ↑ or ↓ 31 repeatedly to select ⊞ (INTERVAL), then press ENTER 31.

The options for "INTERVAL" appear on the TV screen.

3 Press ↑ or ↓ 31 repeatedly to select the transition interval you want.

The default setting is underlined.

- NORMAL: Sets the duration to about 6 to 9 seconds (Images that are 4,000,000 pixels or more will lengthen the duration).
- FAST: Sets the duration shorter than NORMAL.
- SLOW 1: Sets the duration longer than NORMAL.
- SLOW 2: Sets the duration longer than SLOW 1.

4 Press ENTER 31.

The selected setting takes effect.

Note

Some JPEG image files (especially progressive JPEG image files or JPEG image files with 3,000,000 pixels or more) may take a longer time to display than others, which may make the transitions seem longer than that of the option you selected.

Selecting a transition effect for image files in the slide show

(JPEG image files only)

1 Press ⊙ DISPLAY 27 repeatedly until the Control Menu for JPEG image files appears on the TV screen.

2 Press ✦ or ✦ 31 repeatedly to select ▦ (EFFECT), then press ENTER 31.

   The options for "EFFECT" appear on the TV screen.

3 Press ✦ or ✦ 31 repeatedly to select the setting you want.

   The default setting is underlined.

   • <u>MODE 1</u>: The image sweeps in from top to bottom of the screen.
   • MODE 2: The image sweeps in from left to right of the screen.
   • MODE 3: The image stretches out from the center of the screen.
   • MODE 4: The images randomly cycle through the effects.
   • MODE 5: The next image slides over the current image.
   • OFF: Turns off this function.

4 Press ENTER 31.

   The selected setting takes effect.

Enjoying DivX® video files

DATA CD **DATA DVD**

About DivX Video Files

DivX® is a video file compression technology, developed by DivX, Inc. This product is an official DivX® Certified product.
This system can play back files which have the extension ".AVI" or ".DIVX" that contain data in DivX format.

Notes

• The system may not play back a DivX video file when the file has been combined from two or more DivX video files.
• The system cannot play back a DivX video file size of more than 720 (width) × 576 (height)/2GB.
• Depending on the DivX video file, the picture may be unclear or the sound may skip.
• The system cannot play back some DivX video files that are longer than 3 hours.

Disc

Playing an album of DivX video files or a DivX video file

1 Insert a DATA CD/DVD with DivX video files in the disc slot [5].

The system starts playing the first album.

2 Press DVD/USB/TUNER MENU [25].

The album list appears on the TV screen.

```
      📁   3 ( 3 )

      S U M M E R   2 0 0 3
      N E W   Y E A R ' S   D A Y
      M Y F A V O U R I T E S
```
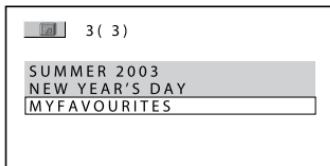
3 Press ✦ or ✦ [31] repeatedly to select an album.

Playing an album:
Press ▷ [18] (or DVD ▶ [16] on the unit).
The system starts playing the first DivX video file of the selected album.
To stop playback, press ■ [18].

Playing a DivX video file:

1 Press ENTER [31].

The list of DivX video files of the selected album appears.

```
      📁  M Y   F A V O U R I T E S
      ▣       1 ( 2 )

      H A W A I I   2 0 0 4
      V E N U S
```
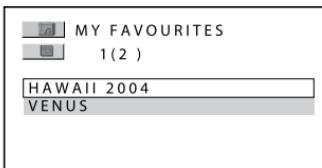
2 Press ✦ or ✦ [31] repeatedly to select the DivX video file you want, then press ENTER [31].
The system starts playing the selected of DivX video files.
To stop playback, press ■ [18].

To display the next or previous page of file list or album list

Press ◀ or ▶ [31] repeatedly when the file list or album list is displayed.

To play back the next album of DivX video files

You can select the next album by pressing ▶▶I [8] repeatedly until the last file of the current album, then press ▶▶I [8] once. The first file of the next album is selected. However, you cannot select the previous album by pressing I◀◀ [8] repeatedly. To select the previous album, select the album from the album list.

To return to the album list when the file list is displayed

Press ⌂ RETURN 30.

To turn on or off the album list

Press DVD/USB/TUNER MENU 25 repeatedly.

Notes

- Depending on the DivX video file, the picture may pause or be unclear. In this case, it is recommended that you create the file at a lower bit rate. If the sound is still noisy, MP3 is the recommended audio format. Note that, this system does not conform to WMA (Windows Media Audio) format.
- Due to the compression technology used for DivX video files, it may take some time after you press ▷ 18 for the picture to appear.
- Depending on the DivX video file, the sound may not match the pictures on the screen.

Tip

If the number of viewing times has been preset, you can play back the DivX video files as many times as the preset number. The following occurrences are counted:

— when the system is turned off.
— when another DivX video file is played back.

Adjusting the delay between the picture and sound
— A/V SYNC

DVD-V   DVD-VR   VIDEO CD   DATA CD   DATA DVD

When the sound does not synchronize with the pictures on the screen, you can adjust the delay between the picture and sound.
A/V SYNC does not work for MP3 audio tracks and JPEG image files in DATA CD/DVD.

1 Press ☐ DISPLAY 27 when playback is stopped.

The Control Menu appears on the TV screen.

2 Press ↑ or ↓ 31 repeatedly to select 🔲 🔲 (A/V SYNC), then press ENTER 31.

The options for "A/V SYNC" appear on the TV screen.

3 Press ↑ or ↓ 31 repeatedly to select the setting you want.

The default setting is underlined.

- OFF: Does not adjust.
- ON: Adjusts the difference between picture and sound.

4 Press ENTER 31.

Note

Depending on the input stream, this function may not be effective.

Disc

49^{GB}

Restricting playback of the disc

— CUSTOM PARENTAL CONTROL, PARENTAL CONTROL

DVD-V **VIDEO CD** **C D**

You can set 2 kinds of playback restrictions for the disc you want.

Custom Parental Control
You can set playback restrictions so that the system will not play back inappropriate discs.

Parental Control
You can limit the playback of some DVD VIDEOs according to a predetermined level such as the age of the users. When a limited scene is played back, that scene may be skipped or replaced with different scenes.

The same password is used for both Custom Parental Control and Parental Control.

Preventing playback of specific discs

— CUSTOM PARENTAL CONTROL

You can set the same Custom Parental Control password for up to 40 discs. When you set the 41st-disc, the playback restriction for the first disc is canceled.

1 Insert the disc you want to set the playback restriction.
If the disc is playing, press ■ 18 to stop playback.

2 Press ⊙ DISPLAY 27 when playback is stopped.
The Control Menu appears on the TV screen.

3 Press ♠ or ♦ 31 repeatedly to select 🔒 (PARENTAL CONTROL), then press ENTER 31.
The options for "PARENTAL CONTROL" appear on the TV screen.

4 Press ♠ or ♦ 31 repeatedly to select "ON →," then press ENTER 31.

If you have not entered a password:

The display for registering a new password appears.

```
PARENTAL CONTROL

  Enter a new 4-digit password,
  then press  ENTER .

      ▢     ▢     ▢     ▢
```
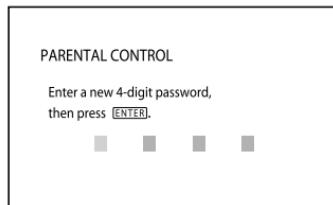
Enter a 4-digit password using the numeric buttons ③④, then press ENTER ③①.
The display for confirming the password appears on the TV screen.

When you have already registered a password:

The display for entering the password appears on the TV screen.

5 Enter or re-enter your 4-digit password using the numeric buttons ③④, then press ENTER ③①.

"Custom parental control is set." appears on the TV screen and the screen returns to the Control Menu.

If you make a mistake when entering your password

Press ← ③① repeatedly to delete the number you have entered, then re-enter your password again.

To turn off the Custom Parental Control function

1 Follow steps 1 through 3 of "Preventing playback of specific discs" (page 50).

2 Press ↑ or ↓ repeatedly to select "OFF →," then press ENTER ③①.

3 Enter your 4-digit password using the numeric buttons ③④, then press ENTER ③①.

To play back a disc for which Custom Parental Control is set

1 Insert the disc for which Custom Parental Control is set.
The "CUSTOM PARENTAL CONTROL" display appears.
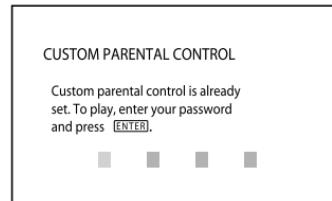
```
CUSTOM PARENTAL CONTROL

  Custom parental control is already
  set. To play, enter your password
  and press  ENTER .

      ▢     ▢     ▢     ▢
```

51^{GB}

2 Enter your 4-digit password using the numeric buttons ㉞, then press ENTER ㉛.

The system is ready for playback.

Tip
If you forget your password, enter the 6-digit number "199703" using the numeric buttons ㉞ when the "CUSTOM PARENTAL CONTROL" display asks you for your password, then press ENTER ㉛. The display will ask you to enter a new 4-digit password.

Limiting playback for children

— PARENTAL CONTROL

(DVD VIDEO only)
You can limit the playback of some DVD VIDEOs according to a predetermined level such as the age of the users.

1 Press ⬚ DISPLAY ㉗ when playback is stopped.

The Control Menu appears on the TV screen.

2 Press ↑ or ↓ ㉛ repeatedly to select ⬚ (PARENTAL CONTROL), then press ENTER ㉛.

The options for "PARENTAL CONTROL" appear on the TV screen.

3 Press ↑ or ↓ ㉛ repeatedly to select "PLAYER →," then press ENTER ㉛.

If you have not entered a password:
The display for registering a new password appears.

```
PARENTAL CONTROL

  Enter a new 4-digit password,
  then press  ENTER .

        ▪      ▪      ▪      ▪
```

Enter a 4-digit password using the numeric buttons ㉞, then press ENTER ㉛.
The display for confirming the password appears on the TV screen.

When you have already registered a password:
The display for entering the password appears on the TV screen.

4 Enter or re-enter your 4-digit password using the numeric buttons 34, then press ENTER 31.

The display for setting the playback limitation level appears.

```
PARENTAL CONTROL
LEVEL:                        OFF
STANDARD:                     USA
```
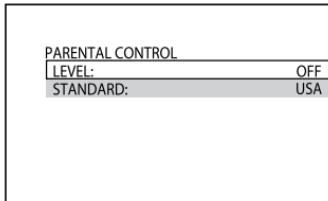
5 Press ♠ or ♦ 31 repeatedly to select "STANDARD," then press ENTER 31.

The options for "STANDARD" appear on the TV screen.

6 Press ♠ or ♦ 31 repeatedly to select a geographic area as the playback limitation level, then press ENTER 31.

The area is selected.
When you select "OTHERS →," enter the area code for the geographic area you want according to the "Parental Control area code list" (page 102) by using the numeric buttons 34.

7 Press ♠ or ♦ 31 repeatedly to select "LEVEL," then press ENTER 31.

The options for "LEVEL" appear on the TV screen.

8 Press ♠ or ♦ 31 repeatedly to select the level you want, then press ENTER 31.

Parental Control setting is completed. The lower the value, the stricter the limitation.
To turn off the Parental Control function, set "LEVEL" to "OFF."

If you make a mistake when entering your password

Press ← 31 repeatedly to delete the number you have entered, then re-enter your password again.

To play back a disc for which Parental Control is set

1 Insert the disc and press ▷ 18 (or DVD ► 16 on the unit).
The display for entering your password appears on the TV screen.

2 Enter your 4-digit password using the numeric buttons 34, then press ENTER 31.
The system starts playback.

Disc

53^{GB}

Notes

- The Control Menu display will show different items depending on the disc type.
- When you play back DVD VIDEOs which do not have the Parental Control function, playback cannot be limited on this system.
- Depending on the DVD VIDEO, you may be asked to change the parental control level while playing the disc. In this case, enter your password, then change the level. If Resume Play is canceled, the level returns to the original level.

Tip

If you forget your password, remove the disc and repeat steps 1 to 3 of "Limiting playback for children." When you are asked to enter your password, enter "199703" using the numeric buttons 34, then press ENTER 31. The display will ask you to enter a new 4-digit password. After you enter a new 4-digit password, reinsert the disc and press ▷ 18. When the display for entering your password appears, enter your new password.

Changing the password

1 Press ⊙ DISPLAY 27 when playback is stopped.
The Control Menu appears on the TV screen.

2 Press ✦ or ✦ 31 repeatedly to select ⬛🔒 (PARENTAL CONTROL), then press ENTER 31.
The options for "PARENTAL CONTROL" appear on the TV screen.

3 Press ✦ or ✦ 31 repeatedly to select "PASSWORD →," then press ENTER 31.
The display for entering the password appears on the TV screen.

4 Enter your 4-digit password using the numeric buttons 34, then press ENTER 31.

5 Enter a new 4-digit password using the numeric buttons 34, then press ENTER 31.

6 To confirm your password, re-enter it using the numeric buttons 34, then press ENTER 31.

If you make a mistake when entering your password

Press ← 31 repeatedly to delete the number you have entered, then re-enter your password again.

Using the DVD setup menu

By using the DVD setup menu, you can make various adjustments to items such as picture and sound.

Note
Playback settings stored in the disc take priority over the DVD setup menu settings. Therefore, some of the DVD setup menu settings may not be performed.

1 Press ⊙ DISPLAY 27 when playback is stopped.

The Control Menu appears on the TV screen.

2 Press ✦ or ✦ 31 repeatedly to select 🔲 (SETUP), then press ENTER 31.

The options for "SETUP" appear on the TV screen.

3 Press ✦ or ✦ 31 repeatedly to select "CUSTOM," then press ENTER 31.

The Setup menu appears on the TV screen.

4 Press ✦ or ✦ 31 repeatedly to select the setup item from the displayed list: "LANGUAGE SETUP," "SCREEN SETUP" or "CUSTOM SETUP." Then press ENTER 31.

The setup item is selected.
Example: SCREEN SETUP

Selected item

```
SCREEN SETUP
TV TYPE:                        16:9
COLOR SYSTEM (VIDEO CD):        AUTO
SCREEN SAVER:                     ON
BACKGROUND:           JACKET PICTURE
4:3 OUTPUT:                     FULL
```
Setup items
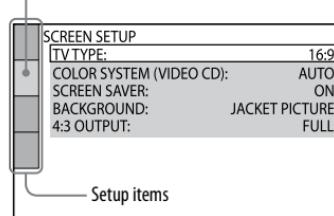
5 Press ✦ or ✦ 31 repeatedly to select the item you want, then press ENTER 31.

The options for the selected item appear on the TV screen.
Example: TV TYPE
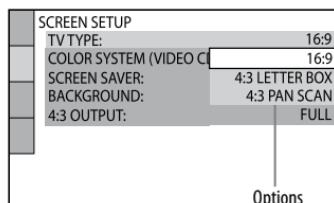
```
SCREEN SETUP
TV TYPE:                        16:9
COLOR SYSTEM (VIDEO C            16:9
SCREEN SAVER:            4:3 LETTER BOX
BACKGROUND:             4:3 PAN SCAN
4:3 OUTPUT:                     FULL
```
Options

Disc

6 Press ↑ or ↓ 31 repeatedly to select the setting you want, then press ENTER 31.

The setting is selected and setup is completed.

```
SCREEN SETUP
TV TYPE:                          4:3 LETTER BOX
COLOR SYSTEM (VIDEO CD):          AUTO
SCREEN SAVER:                     ON
BACKGROUND:                       JACKET PICTURE
4:3 OUTPUT:                       FULL
```

                    Selected setting
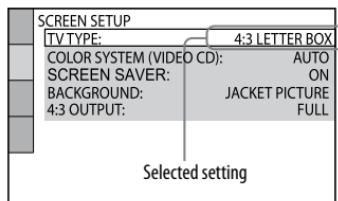
DVD setup menu item list

The default settings are underlined.

Setting the language — LANGUAGE SETUP

Set various languages for the on-screen display or sound track.

```
LANGUAGE SETUP
OSD:               ENGLISH
MENU:              ENGLISH
AUDIO:             ORIGINAL
SUBTITLE:          AUDIO FOLLOW
```
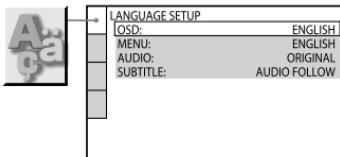
OSD
(On-Screen Display) Switches the language of the on-screen display.

MENU*
(DVD VIDEO only) Select the language for the DVD menu.

AUDIO*
(DVD VIDEO only) Switches the language of the sound track.
When you select "ORIGINAL," the language given priority in the disc is selected.

SUBTITLE*
(DVD VIDEO only) Switches the language of the subtitle.
When you select "AUDIO FOLLOW," the language for the subtitles changes according to the language you selected for the sound track.

* When you select a language in "MENU," "SUBTITLE," or "AUDIO" that is not recorded on the DVD VIDEO, one of the recorded language is automatically selected. However, depending on the disc, the language may not be selected automatically.
If you select "OTHERS →" in "MENU," "SUBTITLE," and "AUDIO," enter a language code from the "Language code list" (page 101) using the numeric buttons 34.

Setting the TV screen — SCREEN SETUP

Choose the settings according to the TV you connected.

```
SCREEN SETUP
TV TYPE:                            16:9
COLOR SYSTEM (VIDEO CD):            AUTO
SCREEN SAVER:                         ON
BACKGROUND:              JACKET PICTURE
4:3 OUTPUT:                         FULL
```
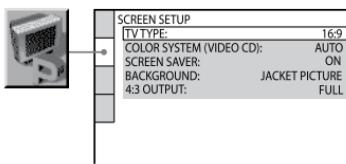
TV TYPE[1]

(DVD VIDEO only)

16:9: Select this when you connect a wide-screen TV or a TV with a wide mode function.

4:3 LETTER BOX: Select this when you connect a 4:3 screen TV. This setting displays a wide picture with bands on the upper and lower portions of the screen.

4:3 PAN SCAN[2]: Select this when you connect a 4:3 screen TV. This setting displays the wide picture on the entire screen and cuts off the portions that do not fit.

COLOR SYSTEM (VIDEO CD)

(Except for European and Russian models)

Select the output video signal when you play back a VIDEO CD.

AUTO: Output the video signal according to the color system of the disc, either PAL or NTSC.

PAL: Change the video signal of an NTSC disc and output it in PAL system.

NTSC: Change the video signal of a PAL disc and output it in NTSC system.

SCREEN SAVER

The screen saver will help prevent your display device from becoming damaged (ghosting). Press ▷ 18 (or DVD ▶ 16 on the unit) to turn off the screen saver.

ON: The screen saver image appears when playback is stopped or paused for 15 minutes or when you play back an AUDIO CD or MP3 audio tracks for more than 15 minutes.

OFF: The screen saver does not appear.

BACKGROUND

Selects the background color or picture to be displayed on the TV screen. The background color or picture is displayed when playback is stopped or while playing an AUDIO CD and MP3 audio tracks.

JACKET PICTURE: The jacket picture (still picture) appears in the background, but only when the jacket picture is already recorded on the disc (DVD VIDEO, CD-EXTRA, etc.). If the disc does not contain a jacket picture, the "GRAPHICS" picture appears.

GRAPHICS: A preset picture stored in the system appears in the background.

BLUE: The background color is blue.

BLACK: The background color is black.

4:3 OUTPUT[3]

Change this setting to watch 4:3 aspect ratio progressive signals. If you can change the aspect ratio on your progressive format (525p/625p) compatible TV, change the setting on your TV.

57GB

FULL: Select this when you can change the aspect ratio on your TV.
NORMAL: Select this when you cannot change the aspect ratio on your TV. Shows a 16:9 aspect ratio signal with black bands on left and right sides of the image.
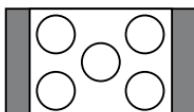
16:9 aspect ratio TV

---

1) The default setting varies depending on the country or region.


16:9

4:3 LETTER BOX

4:3 PAN SCAN

2) Depending on the DVD VIDEO, "4:3 LETTER BOX" may be selected automatically instead of "4:3 PAN SCAN" or vice versa.
3) This setting is effective only when
   − you set "TV TYPE" in "SCREEN SETUP" to "16:9."
   − "P AUTO" or "P VIDEO" is selected (page 21).

Setting playback options — CUSTOM SETUP

Set up playback related and other settings.
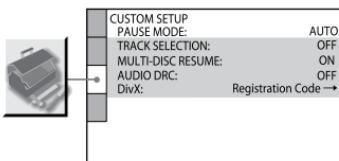
PAUSE MODE

(DVD VIDEO and DVD-R/-RW in VR mode only)
AUTO: The picture, including subjects that move dynamically, is output with no jitter. Normally select this position.
FRAME: The picture, including subjects that do not move dynamically, is output in high resolution.

TRACK SELECTION

(DVD VIDEO only) Gives priority to the sound track which contains the highest number of channels when you play back a DVD VIDEO on which multiple audio (PCM, DTS, MPEG audio, or Dolby Digital) formats[1] are recorded.
OFF: No priority given.
AUTO[2]: Priority given.

MULTI-DISC RESUME

(DVD VIDEO and VIDEO CD only)
ON: Stores the resume playback point in the memory for up to 40 discs.
OFF: Does not store the resume playback point in the memory. Playback starts at the resume playback point only for the current disc in the system.

AUDIO DRC³⁾ (Dynamic Range Compression)
(DVD VIDEO and DVD-R/-RW in VR mode only)
OFF: No compression of dynamic range.
STANDARD: Reproduces the sound track with the kind of dynamic range that the recording engineer intended. Useful for watching movies at low volume late at night.
MAX: Narrows the dynamic range fully.

DivX
Display the registration code for this system.
For more information, go to http://www.divx.com on the Internet.

¹⁾ If each audio sound track has the same number of channels, the system selects the audio sound tracks in the order from PCM, DTS, Dolby Digital, to MPEG.

²⁾ When you set "TRACK SELECTION" to "AUTO," the language may change. The "TRACK SELECTION" setting has higher priority than the "AUDIO" settings in "LANGUAGE SETUP". However, depending on the disc, this function may not be performed.

³⁾ AUDIO DRC can only be performed with Dolby Digital sources.

Tuner

Listening to the radio

You can listen to a radio station either by selecting a preset station, or by manually tuning in the station.

Listening to FM or AM

1 Press FUNCTION +/− 16 repeatedly to select "TUNER FM" or "TUNER AM" (or press TUNER/BAND 16 on the unit repeatedly to select "FM" or "AM").

2 Press and hold TUNING +/− 8 until the frequency indication changes and then release.
Scanning stops automatically when a station is tuned in and "TUNED" lights up in the display. When a FM stereo program is tuned in, "ST" lights up in the display.

```
FM          ST    TUNED

   87.50MHz
```

If "TUNED" does not appear and the scanning does not stop, press TUNING +/− 8 repeatedly to tune in the station you want.
When you tune in a station that provides RDS services, the station name appears on the display. (European model only)

3 Adjust the volume.
Press VOLUME +/− 19.

To stop automatic scanning
Press ■ 18.

To change the AM tuning interval
The factory setting for AM tuning interval is 9 kHz (or 10 kHz, for some areas, this function is not available on the European and Russian models).
Use buttons on the unit.

1 Press TUNER/BAND 16 on the unit repeatedly to select "AM."

2 Press I/⏻ 1 to turn off the system.

3 Press DISPLAY 12 to display the clock.

4 While the clock is displayed, hold down TUNER/BAND 16 and then press I/⏻ 1 to turn on the system.
"AM 9k Step" or "AM 10k Step" appears in the display.
When you change the interval, all the AM preset stations are erased.

Tips
- To improve broadcast reception, adjust the supplied antennas, or connect an external antenna.
- When an FM stereo program has static noise, press REPEAT/FM MODE [17] repeatedly until "MONO" lights up in the display. There will be no stereo effect, but the reception will improve.

Listening to preset radio station

1 Tune in the desired station (see "Listening to FM or AM" (page 60)).

2 Press DVD/USB/TUNER MENU [25].
"Memory?" flashes in the display.

3 Press ENTER [31].
A preset number flashes in the display.
The stations are stored from preset number 1.

```
                    FM      ST   TUNED

    Memory          1
```
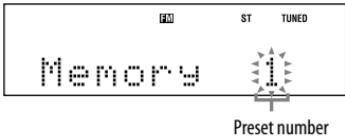
Preset number

4 Press PRESET +/− [8] repeatedly to select the preset number you want.

5 Press ENTER [31].
"Complete!" appears in the display.
The station is stored.

6 Repeat steps 1 to 6 to store other stations.
You can preset up to 20 FM stations and 10 AM stations.
The preset stations are retained for half a day even if you unplug the power cord or if a power failure occurs.

7 To listen to a preset station, press PRESET +/− [8] repeatedly to select the preset station you want.
You can also press the numeric buttons [34], then press ENTER [31] to select a preset station.

To cancel presetting
Press DVD/USB/TUNER MENU [25].

Tuner

USB Device

Listening to music of an USB device

You can connect an optional USB device (Digital music player or USB storage media) to the ⟵⟶ (USB) port 7 on the unit and listen to music stored in the USB device. Check the information on the websites about compatible USB devices that can be connected to this system (page 103).
The audio formats that can be played back by this system are as follows: ATRAC/MP3*/WMA*/AAC*

* Files with copyright protection (Digital Rights Management) cannot be played by this system.
Files downloaded from an online music store may not be played by this system.

1 Select the USB function.
Press FUNCTION +/− 16 repeatedly to select "USB".

2 Connect an optional USB device (Digital music player or USB storage media) to the ⟵⟶ (USB) port 7 as shown below.

USB device (Digital music player or USB storage media)
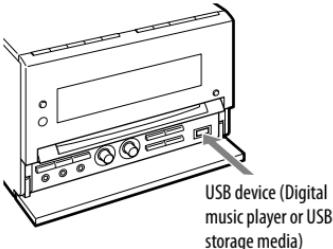
When USB cable connection is necessary, connect the USB cable supplied with the USB device to be connected.
See the operation manual supplied with the USB device to be connected for details on the operation method.
When the USB device is connected, the display changes as follows:
"Reading" → "ATRAC AD[1]" or "StorageDrive[2]"

[1] When connecting a digital music player.
[2] When connecting USB storage media. The volume label is displayed next if recorded.

Note
It may take about 10 seconds before "Reading" appears depending on the type of USB device connected.

3 Start playback.
Press ▷ 18 (or USB ► 16 on the unit).

4 Adjust the volume.
Press VOLUME +/− 19.

Other operation

To	Press
Stop playback	■ 18.
Pause playback	‖ 18. Press ‖ 18 again or ▷ 18 (or USB ► 16 on the unit) to resume playback.
Select an album	🗂 +/− 6.
Select a track	I◀◀ /▶▶I 8.
Find a point in a track	Hold down ◀◀/▶▶ 8 during playback, and release the button at the desired point.
Select Repeat Play	REPEAT/FM MODE 17 repeatedly until "REP" or "REP1" appears.

Remove the USB device	Hold down ■ 18 until "No Device" appears, then remove the USB device.
View the USB device information*	DISPLAY 12 repeatedly.

* For example, you can view the USB device information such as the track number or album name during normal play, or the total playing time while the player is stopped.

To change the play mode

1 Press DVD/USB/TUNER MENU 25 while the USB device is stopped.
"Play Mode?" appears in the display.

2 Press ENTER 31.

3 Press ↑ or ↓ 31 repeatedly to select the play mode.
You can select the following play modes:
- Continue (Normal Play):
  Plays back the audio tracks on the USB device in original order.
- AlbmContinue:
  Plays back the audio tracks in the selected album on the USB device.
- Shuffle:
  Plays back the audio tracks on the USB device in random order.

USB Device

- Albm Shuffle:
  Plays back the audio tracks in the selected album on the USB device in random order.
- Program:
  Plays back the audio tracks on the USB device in the order you want them to be played.

Notes on the USB device

- Do not connect the system and the USB device through a USB hub.
- With some connected USB devices, after an operation is performed, there may be a delay before it is performed by this system.
- This system does not necessarily support all the functions provided in a connected USB device.
- The playback order for the system may differ from the playback order of the connected USB device.
- Always hold down ■ 18 and make sure that "No Device" appears before removing the USB device. Removing the USB device while "No Device" is not displayed may corrupt the data on it or damage the USB device itself.
- Do not save other types of files or unnecessary folders on an USB device that has audio files.
- Folders that have no audio files are skipped.
- Files are played back in the order that they are transferred to the USB device.

- The maximum numbers of albums and tracks that can be contained on a single USB device are as follows:
  — Digital music player: 65,535 groups (maximum 999 tracks per group)
  — USB storage media: 999 files
  The maximum number of tracks and album may vary depending on the file and folder structure.
- The audio formats that you can listen to with this system are as follows:
  — MP3: file extension ".mp3"
  — Windows Media Audio file: file extension ".wma"
  — AAC: file extension ".m4a"
  Note that even when file names have the above file extensions, if the actual file differs, the system may produce noise or may malfunction.
- Compatibility with all encoding/writing softwares, recording devices, and recording media cannot be guaranteed. Incompatible USB device may produce noise or interrupted audio or may not play at all.

Notes on the display information

- Characters that cannot be displayed appear as "_."
- The following are not displayed:
  - total playing time for a CD-DA disc depending on the play mode.
  - total playing time and remaining playing time for an MP3 disc and USB device.
- The following are not displayed correctly:
  - folder and file names that do not follow either the ISO 9660 Level 1, Level 2 or Joliet in the expansion format.
- The following are displayed:
  - ID3 tag information for MP3 files when ID3 version 1 and version 2 tags are used (up to 62 characters for an MP3 disc).
  - ID3 tag information for "ATRAC" files when ID3 version 2 tags are used.

Creating your own program with the USB device

— Program Play

1 Select the USB function.
Press FUNCTION +/− 16 repeatedly to select "USB".

2 Press DVD/USB/TUNER MENU 25 while the USB device is stopped.
"Play Mode?" appears in the display.

3 Press ENTER 31.

4 Press ↑ or ↓ 31 repeatedly to select "Program," then press ENTER 31.

USB Device

65^{GB}

5 Press ◄◄/►►► 8 repeatedly until the desired track number appears.

When programming tracks, press 🗀 +/– 6 repeatedly to select the desired album, and then select the desired track.

Example: When programming tracks on a USB device

Selected track number
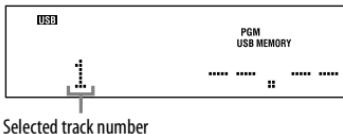
6 Press ENTER 31 to add the track to the program.

The total program time cannot be displayed, so "— —.— —" appears.

7 Repeat steps 5 through 6 to program additional tracks, up to a total of 25 tracks.

8 To play your program of tracks, press ▷ 18 (or USB ► 16 on the unit).

The program remains available until you remove the USB device. To play the same program again, press ▷ 18 (or USB ► 16 on the unit).

To cancel Program Play

Select the play mode other than "Program" in step 4.

To delete the last track of the program

Press CLEAR 33 while the USB device is stopped.

Sound Adjustment

Adjusting the sound

Generating a more dynamic sound (Dynamic Sound Generator X-tra)

You can reinforce the bass and create a more powerful sound.
The DSGX setting is ideal for music sources.

Press DSGX 14 on the unit repeatedly.
Each time you press the button, the display changes as follows:
DSGX ON ←→ DSGX OFF

Tip
The default setting is "DSGX ON."

Setting the sound effect

1 Press EQ 26 repeatedly to select "BASS" or "TREBLE."

2 Press PRESET +/− 8 repeatedly to adjust the level.

Singing along: Karaoke

DVD-V **DVD-VR** **VIDEO CD** **C D** **DATA CD**
DATA DVD

You can sing along with any multiplex AUDIO CD, multiplex VIDEO CD or DVD VIDEO in Dolby Digital Karaoke format.

Preparing for karaoke

(DVD VIDEO, DVD-R/-RW in VR mode, VIDEO CD, AUDIO CD, MP3 audio tracks and DivX video files only)

1 Press FUNCTION +/− 16 repeatedly to select "DVD" (or press DVD ▶ 16 on the unit).

2 Turn MIC LEVEL 9 on the unit to "MIN" to reduce the microphone volume and turn ECHO LEVEL 9 * on the unit to "MIN" to cancel the echo effect.

3 Connect an optional microphone to MIC jack 9 on the unit.

Sound Adjustment

67^{GB}

4 Press KARAOKE MODE ᴣ⁵.
"KARAOKE MODE: ON" appears on the TV screen.

5 Start playing the music and adjust the volume.

DVD VIDEO, DVD-R/-RW in VR mode or DivX video files:
The system outputs the audio format that you have selected.

AUDIO CD, VIDEO CD or MP3 audio tracks:
The audio setting automatically changes to "1/L" and the system outputs the left channel audio on both front and surround channels.

If you want to hear vocal:
Press AUDIO ᴢ² repeatedly to select another audio channel.

6 Start singing along with the music.

Other operations

To	Turn
Adjust the microphone volume	MIC LEVEL ⑨ on the unit.
Adjust the microphone echo	ECHO LEVEL ⑨* on the unit.
Cancel the echo effect	ECHO LEVEL ⑨* on the unit to "MIN."

* Except for European and Russian models

To turn off the Karaoke Mode

Disconnect the microphone or press KARAOKE MODE ᴣ⁵. "KARAOKE MODE: OFF" appears on the TV screen.

Notes
- You cannot activate karaoke mode in step 4 when the QUICK SETUP guide message is displayed on the TV screen.
- Karaoke Mode is automatically turned off when you:
  - turn off the system.
  - change the function.
  - connect the headphones.

Dolby Digital Karaoke format

(DVD VIDEO only)
The Dolby Digital format, which reproduces surround sound using 5 channels, can also contain the "Dolby Digital Karaoke" format which is specialized for karaoke. In the Dolby Digital Karaoke format discs, guide melody and guide vocal tracks are recorded in addition to the accompaniment. You can select them when Karaoke Mode is turned on.

Speaker output in normal Dolby Digital format (5.1 channel)

Front (L)	Center	Front (R)

Surround (L)	Surround (R)
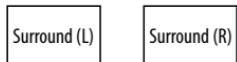
Speaker output in Dolby Digital Karaoke format

Accompaniment   Accompaniment

Front (L)	Center	Front (R)

Guide melody

Surround (L)	Surround (R)

Guide vocal 1   Guide vocal 2
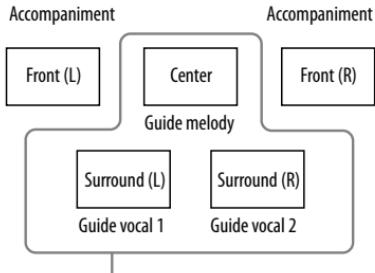
You can select any of these.

You can check the audio information by pressing AUDIO 22 (page 30). When playing a Dolby Digital Karaoke disc, "♪" appears at the current audio format (page 78).

Example:

DOLBY DIGITAL ♪ 3 / 2

2/0: Recorded only with accompaniment.
3/0: Recorded with guide melody.
3/1: Recorded with guide melody and one guide vocal.
3/2: Recorded with guide melody and two guide vocals.

Sound Adjustment

Enjoying karaoke using the control menu

1 Press ⊙ DISPLAY 27 once or twice when Karaoke Mode is turned on while playing a disc.

The Control Menu appears on the TV screen.

2 Press ↑ or ↓ 31 repeatedly to select the Karaoke item from the displayed list, then press ENTER 31.

The Karaoke item is selected.

	CD ▶
OFF	
OFF	
ON	

3 Press ↑ or ↓ 31 repeatedly to select the setting you want, then press ENTER 31.

Setting Karaoke Mode

The default settings are underlined.

KARAOKE PON[1)]

ON: Enjoy karaoke with any disc, even if it is not a karaoke or multiplex disc by reducing the sound of the vocal.
OFF: Cancel the "KARAOKE PON" effect.

KEY CONTROL[2)]

Adjust the pitch of the music to suit your vocal range.
Select "♮" to cancel the "KEY CONTROL" effect.

VOCAL SELECT[3)]

(DVD VIDEO, VIDEO CD, AUDIO CD only)

When playing a DVD VIDEO:

▸ OFF (Turn off the Guide vocal)
↓
1+2 (Guide vocal 1+2)
↓
1 (Guide vocal 1)
↓
2 (Guide vocal 2)
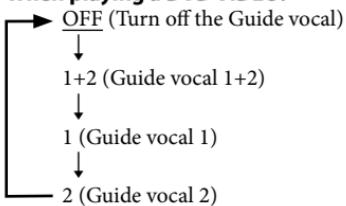
When playing a VIDEO CD or AUDIO CD:

→ OFF (Turn off the vocal)
  ↓
  L+R (The same sound is output from both speakers)
  ↓
  STEREO (The standard stereo sound)

When playing a Super VCD:

→ OFF (Turn off the vocal)
  ↓
  1:L+R
  ↓
  1:STEREO (The stereo sound of the audio track 1)
  ↓
  2:L+R
  ↓
  2:STEREO (The stereo sound of the audio track 2)

GUIDE MELODY[4)]
(DVD VIDEO only)
ON: Turn on the guide melody.
OFF: Turn off the guide melody.

SCORE MODE[5)]
When Karaoke Mode is turned on, you can select this.
Your score is calculated by comparing your voice with the music source.
NORMAL: Advance or professional level.
EASY: Beginner or intermediate level.
DEMO: Demonstration mode.
Consistently displays a high score for every song.

1 Press SCORE 35 before singing a song in Karaoke Mode.
The previous highest score appears on the TV screen.

2 After singing for more than a minute, press SCORE 35 again to view your score.
Your score is calculated from a scale of 0 to 99.

Sound Adjustment

1) The singer's voice may not be reduced when:
   — only a few instruments are playing.
   — a duet is being played back.
   — the source has strong echoes or chorus.
   — the singer's voice deviates from the center.
   — the voice on the source is singing in high soprano or tenor.

   You can also change the "KARAOKE PON" setting by pressing KARAOKE PON 35 when the Karaoke Mode is turned on. The "KARAOKE PON" setting is automatically changed to "OFF" when you set "VOCAL" to "ON."

2) You can also change the "KEY CONTROL" setting by pressing KEY CONTROL ♭ 35 to reduce the key and KEY CONTROL ♯ 35 to increase the key when the Karaoke Mode is turned on.
   The "KEY CONTROL" setting is automatically changed to default setting when you change the track or title. Depending on the disc, you may not be able to do the above operation.

3) The "VOCAL" setting is automatically changed to "OFF" when you set "KARAOKE PON" to "ON."
   For DVD VIDEOs without guide vocal, you cannot turn on the vocal. When playing a DVD VIDEO, the function only works for Dolby Digital Karaoke format. For DVD VIDEOs with 1 guide vocal recorded, you cannot change the vocal.
   Depending on the disc, you may not be able to change the vocal.

4) When playing a DVD VIDEO, the function only works for Dolby Digital Karaoke format. For DVD VIDEOs without guide melody, you cannot hear the guide melody even if you set the setting to "ON."

5) The highest score is reset when the system is turned off.
   If you press other buttons on the remote, the score calculating function may be canceled. In some cases, you may not be able to use the scoring mode.

Note
Each Karaoke setting in the table above is automatically changed to "OFF" or to the default setting when you:
— turn off the system.
— change the function.
— connect the headphones.
— turn off the Karaoke Mode.
— eject the disc.

Other Operations

Using the timer

Falling asleep to music

— Sleep Timer

You can set the system to turn off after a
certain time, so that you can fall asleep
to music.

Press SLEEP 37 repeatedly.
Each time you press the button, the
minute display changes cyclically as
follows:
90min → 80min → 70min → … →
10min → OFF

Other operations

To	Do this
Check the remaining time	Press SLEEP 37 once.
Change the time to turn off	Press SLEEP 37 repeatedly to select the time you want.
Cancel the Sleep Timer	Press SLEEP 37 repeatedly until "SLEEP OFF" appears in the display.

Waking up to music

— Play Timer

You can wake up to CD, tuner or optional
USB device at a preset time. Make sure
you have set the clock (see "Setting the
clock" (page 23)).

1 Prepare the sound source.
  - Disc: Insert a disc.
  - Radio: Tune in the preset station
    you want (see "Listening to the
    radio" (page 60)).
  - USB device: Connect an optional
    USB device (page 62).

2 Press VOLUME +/− 19 to adjust
the volume.

3 Press TIMER MENU 38.

4 Press ↑ or ↓ 31 repeatedly to
select "PLAY SET?," then press
ENTER 31.
"ON" appears and the hour indication
flashes in the display.

5 Set the time to start playback.
Press ↑ or ↓ 31 repeatedly to set the
hour, then press ENTER 31.
The minute indication flashes in the
display. Use the procedure above to
set the minute. "OFF" appears and the
hour indication flashes in the display.

Other Operations

73^{GB}

6 Set the time to stop playback using the same procedure as step 5.

7 Select the sound source.
Press ↑ or ↓ 31 repeatedly until the music source you want appears in the display, then press ENTER 31. This display will show the timer settings.

8 Press I/⏻ 1 to turn off the system.

Other operations

To	Do this
Check the setting	**1** Press TIMER MENU 38. "TIMER SEL?" flashes in the display. **2** Press ENTER 31. **3** Press ↑ or ↓ 31 repeatedly to select "PLAY SELECT?," then press ENTER 31.
Change the setting	Start from step 1.
Cancel the Play Timer	**1** Press TIMER MENU 38. "TIMER SEL?" flashes in the display. **2** Press ENTER 31. **3** Press ↑ or ↓ 31 repeatedly to select "TIMER OFF?," then press ENTER 31.

Notes

- The Play Timer will not be activated if the system is turned on or if "STANDBY" flashes in the display.
- The system turns on 30 seconds before the preset time.

Changing the display

Checking the clock

Press DISPLAY 12 when the system is turned off. The clock is displayed for 8 seconds.

Adjusting the brightness of the display

Press DIMMER 20 repeatedly while the system is on.
Each time you press the button, the display changes cyclically as follows:
DIMMER OFF → DIMMER 1 → DIMMER 2*

* DIMMER 2 is the darkest.

Viewing information about the disc

Viewing information about the disc in the front panel display

Press DISPLAY 12.
Each time you press DISPLAY 12, the display changes from ① → ② → ① → …
① Disc information
② Clock display (for 8 seconds)

Checking the elapsed playing time, remaining time and titles

Press TIME/TEXT 36 during playback.
Each time you press TIME/TEXT 36, the display changes from ① → ② → … → ① → …

When playing a DVD VIDEO or DVD-R/-RW in VR mode:

• When the menu or the title without a chapter is played back
  ① Elapsed playing time of the menu or the current title
  ② Title of the disc[1)]

Other Operations

75^{GB}

- When a chapter other than above condition is played back

  ① Elapsed playing time of the current title

  ② Remaining time of the current title

  ③ Elapsed playing time of the current chapter

  ④ Remaining time of the current chapter

  ⑤ Title of the disc[1)2)]

When playing an AUDIO CD or VIDEO CD without PBC function:

① Elapsed playing time of the current track

② Remaining time of the current track

③ Elapsed playing time of the current disc[3)]

④ Remaining time of the current disc[3)]

⑤ Title of the disc[1)4)]

When playing a VIDEO CD/Super VCD:

① Elapsed playing time of the current scene/track

② Title of the disc[1)4)]

When playing MP3 audio tracks on a DATA CD/DVD or DivX video files on a DATA CD/DVD:

① Elapsed playing time of the current track/file

② Title of the track and file[5)]

Checking the total playing time and titles

Press TIME/TEXT 36 repeatedly when playback is stopped.
Each time you press TIME/TEXT 36, the display changes from ① → ② → ① → …

DVD VIDEO or DVD-R/-RW in VR mode:

① Total number of titles on the disc

② Title of the disc[1)]

VIDEO CD without PBC playback or AUDIO CD:

① Total number of the tracks on the disc and the total playing time of the disc

② Title of the disc[1)]

VIDEO CD with PBC playback:

① Total number of scenes on the disc

② Title of the disc[1)]

[1)] "NO TEXT" appears in the display if the DVD VIDEO is not a DVD-TEXT disc or the VIDEO CD does not have text information.

[2)] The current chapter number and the current title number are displayed for 2 seconds before the display returns to elapsed playing time when you press TIME/TEXT 36 during display of title of the disc.

[3)] When Program Play or Shuffle Play is turned on, the elapsed playing time and the remaining time of the disc would be skipped.

4) The current track number and the current index number (for a disc without PBC) or the current scene number (for a disc with PBC) are displayed for 2 seconds before the display returns to elapsed playing time when you press TIME/TEXT 36 during display of the title of disc.

5) When playing DivX video files, the current album number and the current file number are displayed for 2 seconds before the display returns to elapsed playing time when you press TIME/TEXT 36 during display of title of the file.

Notes
- If you play back a disc containing JPEG image files only, "JPEG" or "No Audio" appears in the display.
- You cannot use TIME/TEXT 36 to change the display of disc information when:
  - a JPEG image file is played back.
  - playback is stopped for DATA CD/DVD with MP3 audio tracks and/or JPEG image files.
  - playback is stopped for DATA CD/DVD with DivX video files.
- If the MP3 audio track title contains characters which cannot be displayed, these characters will be displayed as "*."
- The elapsed playing time of MP3 audio tracks and DivX video files may not be displayed correctly.

Viewing information about the disc in the on-screen display

Press TIME/TEXT 36.

Each time you press TIME/TEXT 36 while playing the disc, the display changes from ① → ② → … → ① → …

The time display that you can view on the TV screen depends on the disc you are playing.

T: title or track
C: chapter
D: disc
Bit rate

⟨⟩ | T | 17:30 | 128k | PLAY | ▶

Time information

JAZZ
RIVER SIDE

Album Title   Disc/track/file title
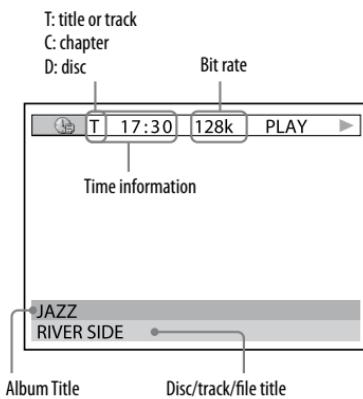
When playing a DVD VIDEO or DVD-R/-RW in VR mode:
① Elapsed playing time of the current title
② Remaining time of the current title
③ Elapsed playing time of the current chapter
④ Remaining time of the current chapter
⑤ Title of the disc

Other Operations

77GB

When playing a VIDEO CD/Super VCD:
① Elapsed playing time of the current scene/track
② Title of the disc

When playing an AUDIO CD or VIDEO CD without PBC function:
① Elapsed playing time of the current track
② Remaining time of the current track
③ Elapsed playing time of the current disc
④ Remaining time of the current disc
⑤ Title of the disc

When playing a DATA CD/DVD:
Elapsed playing time of the current track/file

Notes
- Only alphabet letters, numbers and some symbols can be displayed.
- Depending on the disc, the system can only display a limited number of characters.
- For MP3 audio tracks with format other than ISO 9660 Level 1 and Level 2, album title and track title may not be displayed.

Displaying the audio information of the disc

(DVD VIDEO and DivX video files only)
When you press AUDIO 22 repeatedly during playback, the format of the current audio signal is displayed on the TV screen.

When playing a DVD VIDEO:
For example, in Dolby Digital format, multiple signals ranging from monaural to 5.1 channel signals can be recorded on a DVD VIDEO.

Example:
For Dolby Digital 5.1 channel:

2 Surround components

DOLBY DIGITAL ⎡3⎤ / ⎡2⎤ . ⎡1⎤

2 Front components +
1 Center component

1 LFE (Low Frequency Effect) component
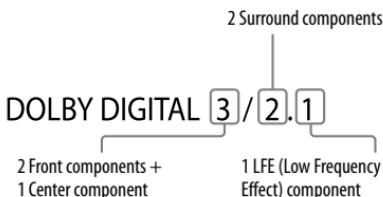
When playing a DivX video file:

Example:
MP3 audio track

⊙ 1 : MP3 128k

Bit rate
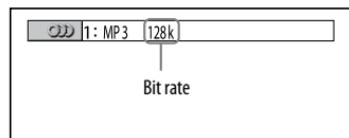
Checking the date information of JPEG image files

You can check the date information during playback when Exif* tag is recorded in the JPEG image files.

Press ⊡ DISPLAY 27 repeatedly during playback.

The Control Menu appears.
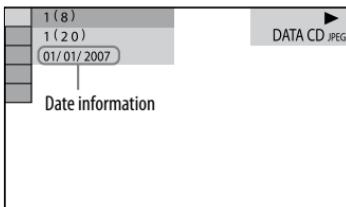
Date information

* "Exchangeable Image File Format" is a digital camera image format defined by the Japan Electronics & Information Technology Industries Association (JEITA).

Note
The date information format varies depending on the area.

Hooking up optional components

To enhance your system, you can connect optional components. Refer to the operating instructions provided with each component.

Front panel

Rear panel

Other Operations
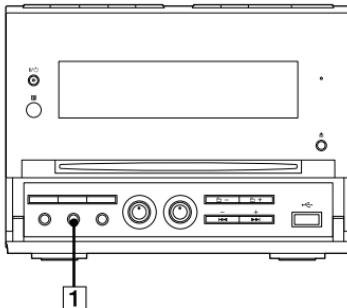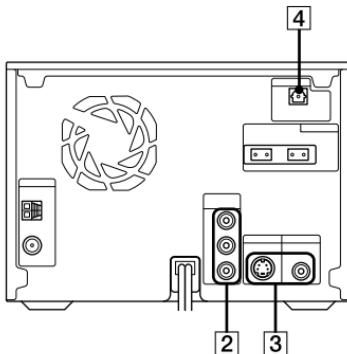
1 AUDIO IN jack

Connect the audio output jack of an optional component (portable audio player, etc.).

2 COMPONENT VIDEO OUT jacks

Connect the component video input jacks of the TV or projector. If your TV accept progressive format signals, you must use this connection and press PROGRESSIVE 13 on the unit repeatedly to select "P AUTO" or "P VIDEO." You can enjoy higher quality video images.

3 S VIDEO OUT/VIDEO OUT jacks

Connect the S Video/video input jack of the TV. You can enjoy higher quality video images when you select the S VIDEO.

4 DIGITAL OUT jack

Connect the digital optical input jack of an optional digital component (such as amplifier). You can enjoy 5.1 channel sound, if the connected amplifier equipped with Dolby Digital or DTS decoder.

Note

Sound is output only when the system function is set to "DVD."

Enjoying the multi channel sound with the optional amplifier

1 Connect the digital optical cord.

See "Hooking up optional components" (page 79).

2 Connect the speakers to an optional amplifier equipped with a decoder.

For the speakers placement, refer to the operating instructions supplied with the connected amplifier.

3 Start playing a multi channel source, such as a DVD VIDEO.

4 Select the audio format you want.

See "Changing the sound" (page 30).

Additional Information

Troubleshooting

Should you encounter a problem with your system, do the following:

1 Make sure the power cord and speaker cords are connected correctly and firmly.

2 Find your problem in the troubleshooting checklist below and take the indicated corrective action.

If the problem persists after doing all of the above, consult your nearest Sony dealer.

If the STANDBY indicator flashes

Immediately unplug the power cord, and check the following items.

- If your system has a voltage selector, is the voltage selector set to the correct voltage?
- Are you using only the supplied speakers?
- Is anything blocking the ventilation holes on the rear of the system?

After the STANDBY indicator ② stops flashing, reconnect the power cord, and turn on the system. If the issue persists, contact your nearest Sony dealer.

General

The clock or timer setting is canceled.
- The power cord is disconnected or a power failure occurred. Redo "Setting the clock" (page 23). If you have set the timer, redo "Waking up to music" (page 73).

"– –:– –" appears in the display.
- A power failure has occurred. Set the clock (page 23) and timer settings (page 73) again.

There is no sound.
- Press VOLUME + ⑲ repeatedly.
- The headphones are connected to the PHONES jack ⑪.
- Check the speaker connections (page 18).
- The system is in pause mode, in Slow-motion Play or in Lock Search. Press ▷ ⑱ (or DVD ► ⑯ on the unit) to start the playback.

There is no microphone sound.
- Press VOLUME + ⑲ repeatedly or turn MIC LEVEL ⑨ on the unit clockwise to adjust the microphone volume.
- Make sure the microphone is connected to the MIC jack ⑨ correctly.

Additional Information

There is severe hum or noise.

- A TV or VCR is placed too close to the unit. Move the unit away from the TV or VCR.
- Move the unit away from the source of noise.
- Connect the unit to a different wall outlet.
- Install a noise filter (commercially available) to the power cord.

The timer does not function.

- Check the timer setting and set the correct time (page 73).
- Cancel the Sleep Timer function (page 73).

The remote does not function.

- Remove the obstacles between the remote and the unit.
- Move the remote closer to the unit.
- Point the remote at the unit's sensor.
- Replace the batteries (R6/size AA).
- Locate the unit away from the fluorescent light.

There is acoustic feedback.

- Reduce the volume.
- Move the microphone away from the speakers or change the direction of the microphone.

The color irregularity on a TV screen persists.

- Turn off the TV set once, then turn it on after 15 to 30 minutes. If the color irregularity still persists, place the speakers farther away from the TV set.

THEATRE SYNC function does not work.

- If distance between the TV and this unit is too far, this function may not work. Install the unit near the TV.

Speakers

Sound comes from one channel or unbalanced left and right volume.

- Place the speakers as symmetrically as possible.
- Check that the speakers are connected securely and correctly.
- The source being played back is monaural.

Disc Player

The disc does not eject.
- Consult your nearest Sony dealer.

Playback does not start.
- Check whether a disc is loaded.
- Wipe the disc clean (page 93).
- Reinsert the disc.
- Insert the disc that this system can play back (page 6).
- Insert the disc in the disc slot ⑤ with the label side facing up.
- Remove the disc and wipe away the moisture on the disc, then leave the system turned on for a few hours until the moisture evaporates.
- Press ▷ ⑱ (or DVD ► ⑯ on the unit) to start playback.
- The region code on the DVD VIDEO does not match the system.
- Cancel the Custom Parental Control function (page 51).

The sound skips.
- Wipe the disc clean (page 93).
- Reinsert the disc.
- Move the unit to a place without vibration (e.g., on top of a stable stand).
- Move the speakers away from the unit, or place them on separate stands. When you listen to a track with bass sounds at high volume, the speaker vibration may cause the sound to skip.

Playback does not start from the first track.
- The system is in Program Play or Shuffle Play mode. Turn off Program Play and Shuffle Play.
- Resume Play has been selected. Press ■ ⑱ twice. Then, press ▷ ⑱ (or DVD ► ⑯ on the unit) to start playback (page 32).
- The title of DVD VIDEO or PBC menu automatically appears on the TV screen.

Playback starts automatically.
- The DVD VIDEO features an auto playback function.

Playback stops automatically.
- Some discs may contain an auto pause signal. While playing such a disc, the playback stops at auto pause signal.

You cannot perform some functions such as Stop, Lock Search, Slow-motion Play, Repeat Play, Shuffle Play or Program Play.
- Depending on the disc, you may not be able to do some of the operations above. Refer to the operating instructions supplied with the disc.

Additional Information

Continued ⟶

83^{GB}

The DATA CD (MP3 audio track/JPEG image file/DivX video file) cannot be played back.

- The DATA CD is not recorded in a format that conforms to ISO 9660 Level 1, Level 2, or Joliet (expansion format).
- The DATA DVD is not recorded in a format that conforms to UDF (Universal Disk Format).
- The MP3 audio track does not have the extension ".MP3".
- The data is not stored in the desired format.
- The MP3 audio tracks in format other than MPEG 1 Audio Layer 3 cannot be played back.
- The system can playback to a depth of 8 folders only.
- For MP3/JPEG files, check the "MODE (MP3, JPEG)" setting (page 41).
- The disc contains more than 200 albums.
- The album contains more than 600 tracks/files.
- For MP3/JPEG files, the album contains more than 300 tracks/files when the "MODE (MP3, JPEG)" is set to "AUTO."

- For MP3/JPEG files, the DATA CD/DVD contains a DivX video file.
- The JPEG image file does not have the extension ".JPG" or ".JPEG".
- The JPEG image file is larger than 3,072 (width) × 2,048 (height) in normal mode, or more than 2,000,000 pixels in Progressive JPEG mode which is mainly used on the Internet website.
- JPEG image files with a high width to length ratio cannot be played back.
- The DivX video file does not have the extension ".AVI" or ".DIVX".
- DivX video files with a high width to length ratio cannot be played back.

The MP3 audio tracks take longer time to play back than others.

- After the system reads all the tracks on the disc, playback may take more time than usual if:
  - the number of albums or tracks on the disc is very large.
  - the album and track organization structure is very complex.

The disc title, album title, track title and DVD-TEXT characters do not appear properly.

- Use a disc that conforms to the ISO 9660 Level 1, Level 2, or Joliet (expansion).
- The character code that can be displayed by this system are as follows:
  - Upper cases (A to Z)
  - Lower cases (a to z)
  - Numbers (0 to 9)
  - Symbols (< > * +, − / [ ] _)

  Other characters may not be displayed correctly.

The surround effect is difficult to hear when you are playing a Dolby Digital or MPEG audio sound track.

- Check the speaker connections (page 18).
- Depending on the DVD VIDEO, the output signal may not be the entire 5.1 channel. It may be monaural or stereo, even if the sound track is recorded in Dolby Digital or MPEG audio format.

The sound loses stereo effect when you play back an AUDIO CD, VIDEO CD, MP3 audio track, DivX video file or DVD VIDEO.

- Make sure the system is connected properly.
- Unplug the microphone or press KARAOKE MODE 35 repeatedly until "KARAOKE MODE: OFF" appears on the TV screen.

USB device

Are you using a supported USB device?

- If you connect an unsupported USB device, the following problems may occur. Check the information on the websites about compatible USB devices (page 103).
  - The USB device is not recognized.
  - File or folder names are not displayed on this system.
  - Playback is not possible.
  - The sound skips.
  - There is noise.

"Over Current" appears.

- A problem has been detected with the level of electrical current from the ⟶ (USB) port 7. Turn off the system and remove the USB device from the ⟶ (USB) port 7. Make sure there is no problem with the USB device. If this display pattern persists, contact your nearest Sony dealer.

There is no sound.

- The USB device is not connected correctly. Turn off the system, then reconnect the USB device and check if the USB MEMORY indicator 3 lights up.

The sound is distorted.

- The bit rate used when encoding the files was low. Send files encoded with higher bit rates to the USB device.

Additional Information

85^{GB}

There is noise or the sound skips.
- Turn off the system, then reconnect the USB device.
- The music data itself contains noise. Noise may have been introduced when creating music data due to the conditions of the computer. Create the music data again.
- When using the USB storage media, copy the files to your computer, format the USB storage media in FAT16 or FAT32 format, and copy the files to the USB storage media again.*

The USB device cannot be connected into the ⠴ (USB) port 7 .
- The USB device is being connected backwards. Connect the USB device in the correct orientation.

The USB storage media which has been used on another device does not work.
- It may be recorded in an unsupported format. If so, first take the precaution of backing up important files on the USB storage media by copying them to your computer hard disk. Next, format the USB storage media with a FAT16 or FAT32 file system and transfer the backed-up audio files onto the USB storage media again.*

"Reading" is displayed for a long time.
- It may take a while to finish reading the USB device if there are many folders or files on it. Thus, we recommend following these guidelines.
  - Total folders on USB device: 100 or less
  - Total files per folder: 100 or less

Erroneous display
- Send the music data to the USB device again, as the data stored in the USB device may have been corrupted.

Play does not start.
- Turn off the system, then reconnect the USB device.
- Connect the USB device that this system can play.
- Press ▷ 18 (or USB ▶ 16 on the unit) to start play.

Play does not start from the first track.
- Set the play mode to Normal Play mode.

Files cannot be played back.

- USB storage media formatted with file systems other than FAT16 or FAT32 are unsupported.*
- If you use partitioned USB storage media, only files on the first partition can be played.
- Files that are encrypted or protected by passwords, etc. cannot be played back.

* This system supports FAT16 and FAT32, but some USB storage media may not support all of these FAT. For details, see the operation manual of each USB storage media or contact the manufacturer.

Picture

There is no picture.

- Press FUNCTION +/− 16 repeatedly to select "DVD" (or press DVD ▶ 16 on the unit).
- Check that the system is connected securely.
- The video cord is damaged. Replace it with a new one.
- Make sure you connect the unit to the video input jack of your TV (page 20).
- Make sure you turn on the TV and operate the TV correctly.
- Press PROGRESSIVE 13 on the unit repeatedly to select "INTERLACE" if you connect your TV to the unit's COMPONENT VIDEO OUT jacks and your TV cannot accept progressive signal.

- You have set to progressive format but your TV cannot accept the signal in progressive format. In this case, set to interlace format (the default setting) (page 21).
- Even if your TV is compatible with progressive format (525p/625p) signals, the image may be affected when you set to progressive format. In this case, set to interlace format (the default setting) (page 21).
- Make sure you select the video input on the TV so that you can view the pictures from the system.
- Make sure you set the color system correctly, according to your TV's color system.
- Make sure you connect the unit and your TV using only the supplied video cord.

Picture noise appears.

- Clean the disc.
- If video signal from your system has to go through your VCR to your TV, the copy-protection applied to some DVD VIDEO programs could affect the picture quality. If you still experience problems after checking your connections, connect your unit directly to your TV's S Video input (page 20).

Additional Information

87^{GB}

- Keep the speaker cords away from the antennas.
- When you play back a VIDEO CD recorded in a different color system from the one you set to the system, the picture image may be distorted.
- When you connect your TV to the COMPONENT VIDEO OUT jacks and play back video-based software in progressive signal format, some sections of the image may appear unnatural due to the conversion process.
- Set the color system to match your TV (page 57).

The aspect ratio of the TV screen cannot be changed even though you can set "TV TYPE" under "SCREEN SETUP" in the Setup Menu when you play back a wide picture.
- The aspect ratio is fixed on your DVD VIDEO.
- If you connect the unit with the S Video cord, connect directly to the TV. Otherwise, you may not change the aspect ratio.
- Depending on the TV, you may not change the aspect ratio.

Messages do not appear on the TV screen in the language you want.
- Select the language you want for the on-screen display in "OSD" under "LANGUAGE SETUP" in the Setup Menu (page 56).

The language for the sound track cannot be changed.
- Multilingual tracks are not recorded on the DVD VIDEO being played back.
- The DVD VIDEO prohibits changing the language for the sound track.

The subtitles language cannot be changed.
- Multilingual subtitles are not recorded on the DVD VIDEO being played back.
- The DVD VIDEO prohibits changing the subtitles.

The subtitles cannot be turned off.
- The DVD VIDEO prohibits turning off subtitles.

The angles cannot be changed.
- Multi-angles are not recorded on the DVD VIDEO being played back.
- The DVD VIDEO prohibits changing the angles.

Tuner

The radio presetting is canceled.

- The power cord is disconnected or a power failure occurred for longer than half a day. Redo "Listening to preset radio station" (page 61).

There is severe hum or noise. ("TUNED" or "ST" flashes in the display)

- Set the proper band and frequency (page 60).
- Connect the antenna properly (page 18).
- Find a place and an orientation that provide good reception, then set up the antenna again. If you cannot obtain good reception, we recommend that you connect a commercially available external antenna.
- The supplied FM lead antenna receives signals along its entire length, so make sure you extend it fully.
- Locate the antennas as far away from the speaker cords, power cord and the USB cable as possible, to avoid picking up noise.
- Try turning off the surrounding electrical equipment.

A stereo FM program cannot be received in stereo.

- Press REPEAT/FM MODE 17 repeatedly until "MONO" disappears from the display.

Optional components

There is no sound.

- Refer to General item "There is no sound." (page 81) and check the condition of the system.
- Connect the component properly (page 79) while checking:
  - if the cords are connected properly.
  - if the cord plugs are firmly inserted all the way.
- Turn on the connected component.
- Refer to the operating instructions supplied with the connected component and start playing.

If the system still does not operate properly after performing the above measures or other troubles not described above occur, reset the system as follows:

Use buttons on the unit to reset the system to its factory default settings.

1. Unplug the power cord.

2. Plug the power cord back in.

3. Press I/⏻ 1 to turn on the system.

4. Press ■ 18, DISPLAY 12 and I/⏻ 1 at the same time.
   "RESET" appears in the display.

Additional Information

The system is reset to the factory settings except for DVD settings. You should set the settings you made, such as the preset stations, clock and timer.

To return the DVD setup to the default settings*, perform reset as follows:

1 Press ☺ DISPLAY 27 when playback is stopped.
   The Control Menu appears on the TV screen.

2 Press ✦ or ✦ 31 repeatedly to select ▭▭▭ (SETUP), then press ENTER 31.

3 Press ✦ or ✦ 31 repeatedly to select "RESET," then press ENTER 31.

4 Press ✦ or ✦ 31 repeatedly to select "YES," then press ENTER 31.
   It takes a few seconds to complete. Do not press I/⏻ 1 when resetting the system.

* Except for Parental Control settings

Self-diagnosis Function

(When letters/numbers appear in the display)
When the self-diagnosis function is activated to prevent the system from malfunctioning, a 5-character service number (e.g. C 13 50) with a combination of a letter and 4 digits appears on the TV screen and the front panel display. In this case, check the following table.

First 3 characters of the service number	Cause and corrective action
C 13	This disc is dirty. • Clean the disc with a soft cloth (page 93).
C 31	The disc is not inserted correctly. • Restart the system, then re-insert the disc correctly.
E XX (XX is a number)	To prevent a malfunction, the system has performed the self-diagnosis function. • Contact your nearest Sony dealer or local authorized Sony service facility and give the 5-character service number. Example: E 61 10

When displaying the version number on the TV screen

When you turn on the system, the version number [VER.X.XX] (X is a number) may appear on the TV screen. Although this is not a malfunction and for Sony service use only, normal system operation will not be possible. Turn off the system, and then turn on the system again to operate.

VER.X.XX

Messages

One of the following messages may appear or flash in the front panel display during operation.

DVD player, Tuner

Cannot Play
- A disc that cannot be played back was inserted.
- A DVD VIDEO with unsupported region code was inserted.

Data Error
- The MP3 audio track, JPEG image file and DivX video file you want to play back is damaged.
- The MP3 audio track does not conform to MPEG 1 Audio Layer 3 format.
- The JPEG image file does not conform to DCF format.
- The DivX video file does not conform to a DivX Certified profiles.
- The MP3 audio track has the extension ".MP3" but it is not in MP3 format.
- The JPEG image file has the extension ".JPG" or ".JPEG" but it is not in JPEG format.
- The DivX video file has the extension ".AVI" or ".DIVX" but it is not in DivX format.

Additional Information

No Disc
There is no disc in the disc slot 5.

Not In Use
You have pressed a button whose operation is not allowed or invalid at that time.

OFF TIME NG!
The on time and off time of Play Timer is the same.

PASSWORD
Custom Parental Control or Parental Control is set.

Please Wait
The system is doing initialization process.

Reading
The system is reading information of the disc. Some buttons are not available.

USB device

ATRAC AD
An ATRAC Audio Device is connected.

Device Error
The USB device could not be recognized.

No Device
No USB device is connected or the connected USB device has been stopped.

No Step
All of the programmed tracks or files have been erased.

No Track
No playable file is loaded in the system.

Not Supported
An unsupported USB device is connected.

Please Wait
The system is readying for usage of an USB device.

Reading
The system is recognizing the USB device.

Removed
The USB device has been removed.

Step Full!
You tried to program more than 26 tracks or files (steps).

StorageDrive
USB storage media is connected.

Precautions

Discs that this system CANNOT play

- Discs of non-standard shape (for example, heart, square, star)
- Discs that have adhesive tape, paper, or sticker attached to them
- Rental or used discs with attached seals where the glue extends beyond the seal
- Discs that have labels printed using ink that feels tacky when touched

Notes on discs

- Before playing, wipe the disc with a cleaning cloth from the center out to the edge.
- Do not clean discs with solvents, such as benzine thinner, or commercially available cleaners or anti-static spray intended for vinyl LPs.
- Do not expose discs to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight.
- Do not use discs encircled with a protection ring. This may cause a malfunction to the system.

On operating voltage

Before operating the system, check that the operating voltage of the unit is identical with the voltage of your local power supply.

On safety

- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall socket, even if the unit itself has been turned off.
- Completely disconnect the power cord (mains lead) from the wall socket (mains) if it is not going to be used for an extended period of time. When unplugging the unit, always grip the plug. Never pull the cord itself.
- Should any solid object or liquid get into the system, unplug the system, and have it checked by qualified personnel before operating it again.
- The AC power cord can be changed only by a qualified service facility.

On placement

- Do not place the system in an inclined position or in locations that are extremely hot, cold, dusty, dirty or humid or lacking adequate ventilation, or subject to vibration, direct sunlight or a bright light.
- Be careful when placing the unit or speakers on surfaces that have been specially treated (for example, with wax, oil, polish) as staining or discoloration of the surface may result.
- If the system is brought directly from a cold to a warm location or is placed in a very damp room, moisture may condense on the lens inside the DVD player, and cause the system to malfunction. In this situation, remove the disc, and leave the system turned on for about an hour until the moisture evaporates.

Additional Information

93^{GB}

On heat buildup

- Heat buildup on the unit during operation is normal and is not cause for alarm.
- Do not touch the cabinet if it has been used continuously at a high volume because the cabinet may have become hot.
- Do not obstruct the ventilation holes.

On the speaker system

The front speaker is magnetically shielded and can be installed near a TV. Color irregularity may still be observed, however on some types of TV screens. In this situation, turn off the TV, wait 15 to 30 minutes, and turn it back on. Place the right speaker on the right side of the unit and the left speaker on the left side of the unit. If there is no improvement, move the speakers far away from the TV.

> **IMPORTANT NOTICE**
> **Caution:** If you leave a still video image or on-screen display image displayed on your TV for an extended period of time via this system, you risk permanent damage to your TV screen. Projection TVs are especially susceptible to this.

Cleaning the cabinet

Clean this system with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent, such as thinner, benzine, or alcohol.

Specifications

Main unit

Amplifier section

DIN power output (rated)
     40 W + 40 W (6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
     50 W + 50 W (6 ohms at 1 kHz, 10% THD)
Inputs:
AUDIO IN (stereo mini jack):
     Voltage 620 mV, impedance 47 kilohms
MIC (mini jack):
     Sensitivity 0.8 mV, impedance 10 kilohms
 (USB) port:
     Type A, maximum current 500 mA
Outputs:
DIGITAL OUT (square optical connector jack):
     Wavelength 660 nm
VIDEO OUT (phono jack):
     Max. output level 1 Vp-p, unbalanced, Sync. negative load impedance 75 ohms
COMPONENT VIDEO OUT:
     Y: 1 Vp-p, 75 ohms
     PB/CB: 0.7 Vp-p, 75 ohms
     PR/CR: 0.7 Vp-p, 75 ohms
S VIDEO OUT (4-pin/mini-DIN jack):
     Y: 1 Vp-p, unbalanced, Sync. negative
     C: 0.286 Vp-p, load impedance 75 ohms
PHONES (stereo mini jack):
     accepts headphones of 8 ohms or more

USB section

Supported bit rate:

    MP3 (MPEG 1 Audio Layer-3):
32 — 320 kbps, VBR

    ATRAC: 48 — 352 kbps
(ATRAC3plus), 66/105/132 kbps
(ATRAC3)

    WMA: 32 — 192 kbps, VBR

    AAC: 48 — 320 kbps

Sampling frequencies:

    MP3 (MPEG 1 Audio Layer-3):
32/44.1/48 kHz

    ATRAC: 44.1 kHz

    WMA: 44.1 kHz

    AAC: 44.1 kHz

Disc player section

System:

    Compact disc and digital audio and
video system

Laser:

Laser Diode Properties

    Emission Duration: Continuous

    Laser Output*: Less than 1000 µW

    * This output is the value measurement
at a distance of 200mm from the
objective lens surface on the Optical
Pick-up Block with 7mm aperture.

Semiconductor laser:

    (DVD: λ=650 nm, CD: λ=790 nm)

Frequency response:

    DVD (PCM 48 kHz): 2 Hz — 22 kHz
(±1dB)

    CD: 2 Hz — 20 kHz (±0.5 dB)

Video color system format:

    European and Russian models: PAL

    Other models: NTSC and PAL

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range:

    87.5 — 108.0 MHz (50 kHz step)

Antenna:

    FM lead antenna

Antenna terminals:

    75 ohms unbalanced

Intermediate frequency:

    10.7 MHz

AM tuner section

Tuning range:

    European and Russian models:
531 — 1,602 kHz (with the interval set
at 9 kHz)

    Other models:
530 — 1,710 kHz (with the interval set
at 10 kHz)
531 — 1,602 kHz (with the interval set
at 9 kHz)

Antenna:

    AM loop antenna

Antenna terminals:

    External antenna terminal

Intermediate frequency:

    450 kHz

Speaker

Speaker system:

    Full range, bass-reflex type,
magnetically shielded

Speaker units:

    120 mm, cone type

Rated impedance:

    6 ohms

Dimensions (w/h/d):

    Approx. 141 × 141 × 225 mm

Mass:

    Approx. 1.5 kg

Additional Information

General

Power requirements:
     Taiwan model: 120 V AC, 50/60 Hz
     Thai model: 220 V AC, 50/60 Hz
     Other models: 220 − 240 V AC,
     50/60 Hz
Power consumption:
     45 W
Dimensions (w/h/d) (Approx.):
     190 × 141 × 273 mm
Mass (Approx.):
     2.8 kg
Supplied accessories:
     Remote Commander (1)
     R6 (Size AA) batteries (2)
     AM loop antenna (1)
     FM lead antenna (1)
     Video cord (1)
     Speaker pads (8)

Design and specifications are subject to
change without notice.

- Standby power consumption: 0.5 W
- Halogenated flame retardants are not used
  in the certain printed wiring boards.

Guide to the Control Menu display

Use the Control Menu to select a function and to view related information. Press
⬚ DISPLAY 27 repeatedly to turn on, turn off or change the Control Menu display as
follows:

Control Menu display 1 → Control Menu display 2 (appears for certain discs only) →
Control Menu display off → Control Menu display 1 → …

Control Menu display

The Control Menu display 1 and 2 will show different items depending on the disc type.
Example: Control Menu display 1 when playing a DVD VIDEO

Currently playing title number

Currently playing chapter number

Total number of titles

Total number of chapters

Playback status (▶ Playback,
❚❚ Pause, ■ Stop, etc.)

**Control Menu
items**

Selected item

Type of disc being played
back

Elapsed playing time

Current setting

Options

Function name of
selected Control
Menu item

Operation message

Additional Information

97^{GB}
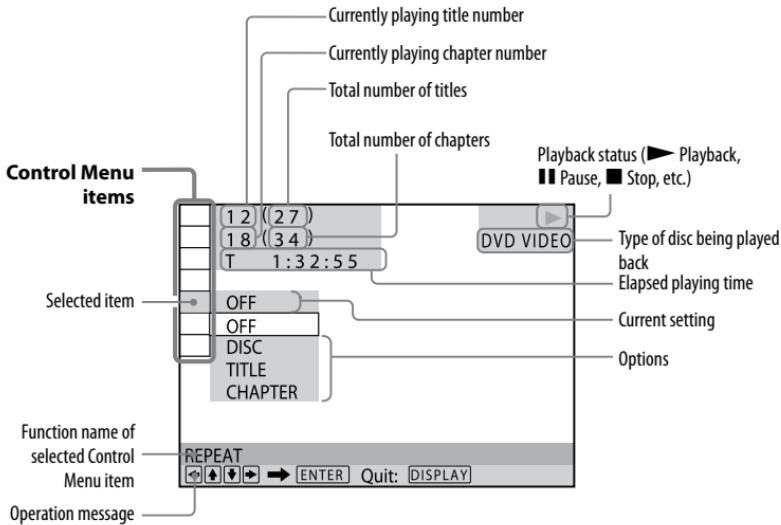
List of Control Menu items

Item	Item Name, Relevant Disc Type, Function
	TITLE/SCENE/TRACK `DVD-V` `DVD-VR` `VIDEO CD` Selects the title, scene, or track to be played back.
	CHAPTER/INDEX `DVD-V` `DVD-VR` `VIDEO CD` Selects the chapter or index to be played back.
	TRACK `CD` `DATA CD` `DATA DVD` Selects the track to be played back.
	ORIGINAL/PLAY LIST `DVD-VR` Selects the playback sequence either to the originally recorded sequence or to the playlist created on the disc.
	TIME/TEXT `DVD-V` `DVD-VR` `VIDEO CD` `CD` `DATA CD` `DATA DVD` Checks the elapsed playing time and the remaining time. Inputs the time code for picture and music searching. Displays the text information on the DVD TEXT discs and MP3 audio tracks.
	PROGRAM `VIDEO CD` `CD` Plays back the track in the order you want.
	SHUFFLE `VIDEO CD` `CD` `DATA CD` `DATA DVD` Plays back the track in random order.
	REPEAT `DVD-V` `DVD-VR` `VIDEO CD` `CD` `DATA CD` `DATA DVD` Plays back a disc repeatedly, the entire disc (all titles/all tracks/all albums) repeatedly or one title/chapter/track/album/file repeatedly.

Item	Item Name, Relevant Disc Type, Function
	A/V SYNC `DVD-V` `DVD-VR` `VIDEO CD` `DATA CD` `DATA DVD` Sets the delay time between the sound and display.
	PARENTAL CONTROL `DVD-V` `VIDEO CD` `C D` Sets to prohibit playback on this system.
	SETUP `DVD-V` `DVD-VR` `VIDEO CD` `C D` `DATA CD` `DATA DVD` **QUICK Setup** Use QUICK SETUP to choose the language of the on-screen display and the aspect ratio of the TV. **CUSTOM Setup** In addition to the QUICK SETUP setting, you can adjust other settings. **RESET** Returns the settings in "SETUP" to the default setting.
	ALBUM `DATA CD` `DATA DVD` Selects the album to be played back.
	FILE `DATA CD` `DATA DVD` Selects the JPEG image file or DivX video file to be played back.
	DATE `DATA CD` `DATA DVD` Displays the date when the picture was taken by a digital camera.
	INTERVAL `DATA CD` `DATA DVD` Specifies the duration for which the slides are displayed on the TV screen.
	EFFECT `DATA CD` `DATA DVD` Selects the transition effects to be used for changing slides during a slide show.

Additional Information

99^{GB}

Item	Item Name, Relevant Disc Type, Function
MODE (MP3, JPEG)   `DATA CD` `DATA DVD`
Selects the data type: MP3 audio track (AUDIO), JPEG image file (IMAGE) or both (AUTO) to be played back when playing a DATA CD/DVD.
KEY CONTROL*   `DVD-V` `DVD-VR` `VIDEO CD` `CD` `DATA CD` `DATA DVD`
Changes the key to suit your vocal range.
SCORE MODE*   `DVD-V` `DVD-VR` `VIDEO CD` `CD` `DATA CD` `DATA DVD`
Selects the level for scoring mode.
KARAOKE PON*   `DVD-V` `DVD-VR` `VIDEO CD` `CD` `DATA CD` `DATA DVD`
Enjoys karaoke with a stereo-recorded disc by reducing the sound of the vocals.
VOCAL SELECT*   `DVD-V`   `VIDEO CD` `CD`
Selects the guide vocal recorded on the Dolby Digital Karaoke Format disc (DVD VIDEO only). Selects the vocal type recorded on the disc (VIDEO CD, AUDIO CD only). Turns off the vocal (VIDEO CD, AUDIO CD only).
GUIDE MELODY*   `DVD-V`
Turns on or off the guide melody for Dolby Digital Karaoke Format disc.

* This function is only available during karaoke mode.

Language code list

The language spellings conform to the ISO 639:1988 (E/F) standard.

Code	Language	Code	Language	Code	Language	Code	Language
1027	Afar	1186	Scots Gaelic	1350	Malayalam	1513	Siswati
1028	Abkhazian	1194	Galician	1352	Mongolian	1514	Sesotho
1032	Afrikaans	1196	Guarani	1353	Moldavian	1515	Sundanese
1039	Amharic	1203	Gujarati	1356	Marathi	1516	Swedish
1044	Arabic	1209	Hausa	1357	Malay	1517	Swahili
1045	Assamese	1217	Hindi	1358	Maltese	1521	Tamil
1051	Aymara	1226	Croatian	1363	Burmese	1525	Telugu
1052	Azerbaijani	1229	Hungarian	1365	Nauru	1527	Tajik
1053	Bashkir	1233	Armenian	1369	Nepali	1528	Thai
1057	Byelorussian	1235	Interlingua	1376	Dutch	1529	Tigrinya
1059	Bulgarian	1239	Interlingue	1379	Norwegian	1531	Turkmen
1060	Bihari	1245	Inupiak	1393	Occitan	1532	Tagalog
1061	Bislama	1248	Indonesian	1403	(Afan) Oromo	1534	Setswana
1066	Bengali; Bangla	1253	Icelandic	1408	Oriya	1535	Tonga
1067	Tibetan	1254	Italian	1417	Punjabi	1538	Turkish
1070	Breton	1257	Hebrew	1428	Polish	1539	Tsonga
1079	Catalan	1261	Japanese	1435	Pashto; Pushto	1540	Tatar
1093	Corsican	1269	Yiddish	1436	Portuguese	1543	Twi
1097	Czech	1283	Javanese	1463	Quechua	1557	Ukrainian
1103	Welsh	1287	Georgian	1481	Rhaeto-Romance	1564	Urdu
1105	Danish	1297	Kazakh	1482	Kirundi	1572	Uzbek
1109	German	1298	Greenlandic	1483	Romanian	1581	Vietnamese
1130	Bhutani	1299	Cambodian	1489	Russian	1587	Volapük
1142	Greek	1300	Kannada	1491	Kinyarwanda	1613	Wolof
1144	English	1301	Korean	1495	Sanskrit	1632	Xhosa
1145	Esperanto	1305	Kashmiri	1498	Sindhi	1665	Yoruba
1149	Spanish	1307	Kurdish	1501	Sangho	1684	Chinese
1150	Estonian	1311	Kirghiz	1502	Serbo-Croatian	1697	Zulu
1151	Basque	1313	Latin	1503	Singhalese	1703	Not specified
1157	Persian	1326	Lingala	1505	Slovak		
1165	Finnish	1327	Laothian	1506	Slovenian		
1166	Fiji	1332	Lithuanian	1507	Samoan		
1171	Faroese	1334	Latvian; Lettish	1508	Shona		
1174	French	1345	Malagasy	1509	Somali		
1181	Frisian	1347	Maori	1511	Albanian		
1183	Irish	1349	Macedonian	1512	Serbian		

Additional Information

Parental Control area code list

Code	Area	Code	Area	Code	Area	Code	Area
2044	Argentina	2165	Finland	2362	Mexico	2149	Spain
2047	Australia	2174	France	2376	Netherlands	2499	Sweden
2046	Austria	2109	Germany	2390	New Zealand	2086	Switzerland
2057	Belgium	2248	India	2379	Norway	2528	Thailand
2070	Brazil	2238	Indonesia	2427	Pakistan	2184	United Kingdom
2079	Canada	2254	Italy	2424	Philippines		
2090	Chile	2276	Japan	2436	Portugal		
2092	China	2304	Korea	2489	Russia		
2115	Denmark	2363	Malaysia	2501	Singapore		

Playable USB devices

Check the websites below for the information about compatible USB devices.

For customers in the U.S.A.:
<http://www.sony.com/shelfsupport>
For customers in Canada:
English <http://www.sony.ca/ElectronicsSupport/>
French <http://fr.sony.ca/ElectronicsSupport/>
For customers in Europe:
<http://sonydigital-link.com/dna>
For customers in Latin America:
<http://www.sony-latin.com/pa/info>
For customers in Asia and Oceania:
<http://www.css.ap.sony.com/>

Additional Information

Glossary

Album

Section of a music or picture piece on a DATA CD or DATA DVD containing MP3 audio tracks, JPEG image files or DivX image file.

Chapter

Subdivision of a title on a DVD VIDEO. A title is composed of several chapters.

DivX®

Digital video technology created by DivX, Inc. Videos encoded with DivX technology are among the highest quality with a relatively small file size.

Dolby Digital

This sound format for movie theaters is more advanced than Dolby Surround Pro Logic. In this format, the surround speakers output stereo sound with an expanded frequency range and a subwoofer channel for deep bass is independently provided. This format is also called "5.1" because the subwoofer channel is counted as 0.1 channel (since it functions only when a deep bass effect is needed). All six channels in this format are recorded separately to realize superior channel separation. Furthermore, since all the signals are processed digitally, less signal degradation occurs.

DTS

Digital audio compression technology that the Digital Theater Systems, Inc. developed. This technology conforms to 5.1-channel surround. The surround channel is stereo and there is discrete subwoofer channel in this format. DTS provides the same 5.1 discrete channels of high quality digital audio. The good channel separation is realized because the all channel data is recorded discrete and processed in digital.

DVD VIDEO

A disc that contains up to 8 hours of moving pictures even though its diameter is the same as an AUDIO CD. The data capacity of a single-layer and single-sided DVD VIDEO, at 4.7 GB (Giga Byte), is 7 times that of an AUDIO CD. Furthermore, the data capacity of a dual-layer and single-sided DVD VIDEO is 8.5 GB, a single-layer and double-sided DVD VIDEO 9.4 GB, and a dual-layer and double-sided DVD VIDEO 17 GB. The picture data uses the MPEG 2 format, one of the worldwide standards for digital compression technology. The picture data is compressed to about 1/40 of its original size. The DVD VIDEO also uses variable rate coding technology that changes the data to be allocated according to the status of the picture.

The audio data is recorded in Dolby Digital as well as in PCM, allowing you to enjoy more realistic audio presence. Furthermore, various advanced functions such as the multi-angle, multilingual, and Parental Control functions are provided with the DVD VIDEO.

DVD-RW

A DVD-RW is a recordable and rewritable disc that is the same size as a DVD VIDEO. The DVD-RW has two different modes: VR mode and Video mode. DVD-RWs created in Video mode have the same format as a DVD VIDEO, while discs created in VR (Video Recording) mode allow the contents to be programmed or edited.

DVD+RW

A DVD+RW (plus RW) is a recordable and rewritable disc. DVD+RWs use a recording format that is comparable to the DVD VIDEO format.

File

A JPEG image file or a DivX video file recorded on a DATA CD or DATA DVD. ("File" is an exclusive definition for this system.) A single file consists of a single image or movie.

Film based software, Video based software

DVD VIDEOs can be classified as Film based or Video based software. Film based DVD VIDEOs contain the same images (24 frames per second) that are shown at movie theaters. Video based DVD VIDEOs, such as television dramas or sitcoms, displays images at 30 frames (or 60 fields) per second.

Interlace format (Interlaced scanning)

The Interlace format is the NTSC standard method for displaying TV images at 30 frames per second. Each frame is scanned twice-alternately between the even numbered scanning lines and then odd numbered scanning lines, at 60 times per second.

Multi-angle function

Various angles, or viewpoints of the video camera, for a scene are recorded on some DVD VIDEOs.

Multilingual function

Several languages for the sound or subtitles in a picture are recorded on some DVD VIDEOs.

Additional Information

Parental Control

A function of the DVD VIDEO to limit playback of the disc by the age of the users according to the limitation level in each country. The limitation varies from disc to disc; when it is activated, playback is completely prohibited, violent scenes are skipped or replaced with other scenes and so on.

Playback Control (PBC)

Signals encoded on VIDEO CDs (Version 2.0) to control playback. By using menu screens recorded on VIDEO CDs with PBC functions, you can enjoy playing simple interactive programs, programs with search functions, and so on.

Progressive format (sequential scanning)

In contrast to the Interlace format, the progressive format can reproduce 50 — 60 frames per second by reproducing all scanning lines (525 lines for the NTSC system, 625 lines for PAL system). The overall picture quality increases and still images, text and horizontal lines appear sharper. This format is compatible with the 525 or 625 progressive format.

Region Code

This system is used to protect copyrights. A region code is allocated on each DVD system or DVD VIDEO according to the sales region. Each region code is shown on the unit as well as on the disc packaging. The system can play back the discs that match its region code. The system can also play back discs with the " 🌐 " mark. Even when the region code is not shown on the DVD VIDEO, the region limit may still be activated.

Scene

On a VIDEO CD with PBC functions, the menu screens, moving pictures and still pictures are divided into sections called "scenes."

Title

The longest section of a picture or a music piece on a DVD VIDEO; a movie, etc., for a picture piece on video software, or the entire album in audio software.

Track

Section of a picture or a music piece on a VIDEO CD, CD, or MP3. An album is composed of several tracks (MP3 only).

VIDEO CD

A compact disc that contains moving pictures.

The picture data uses the MPEG 1 format, one of the worldwide standards for digital compression technology. The picture data is compressed to about 1/140 of its original size. Consequently, a 12 cm VIDEO CD can contain up to 74 minutes of moving pictures.

VIDEO CDs also contain compact audio data.

Sounds outside the range of human hearing are compressed while the sounds we can hear are not compressed. VIDEO CDs can hold 6 times the audio information of conventional AUDIO CDs.

There are 2 versions of VIDEO CDs.

- Version 1.1: You can play back only moving pictures and sounds.
- Version 2.0: You can play back high-resolution still pictures and enjoy PBC functions.

This system conforms to both versions.

Additional Information

Index

Numerics

Additional Information